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of Transportation

**National Highway  
Traffic Safety  
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Washington, D.C. 20590

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AUTO SAFETY HOTLINE  
(800) 424-9393  
Wash. D.C. Area 366-0123

On-Scene / Vehicle to Vehicle / Front to Right Side  
Dynamic Science, Inc. / Case Number: DS9610  
1992 Mercury Sable LS

1996



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*The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.*

*Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.*

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7. Author(s)  Dynamic Science, Inc.		8. Performing Organization Report No.	
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15. Supplemental Notes  This case was initiated in response to a reported collision in which the right side passenger's air bag deployment caused fatal injuries to the 7 year old right front passenger. This was conducted as an on-scene investigation. This collision occurred in the evening hours on 1996, in  Vehicle 1 was a 1992 Mercury Sable LS 4-door, driven by a 68-year-old male and the right front seat was occupied by a 7 year old male . Vehicle 2 was a 1993 Pontiac Grand Am (SE) 2-door driven by a 28-year-old male. The roadway is an asphalt, two lane, two way, winding desert roadway with no traffic controls.  Vehicle 1 was traveling in an easterly direction, and Vehicle 2 was traveling in a westerly direction. Due to the heavy rain, the driver of Vehicle 1 had begun to slow down. The driver of Vehicle 1 saw Vehicle 2 come across the center double yellow line, but did not have time to take evasive action. Vehicle 2 was traveling too fast for the weather conditions. The driver of Vehicle 2 lost control of the vehicle and it entered the eastbound travel lane, directly in front of Vehicle 1. The left front of Vehicle 1 struck the right front quarter panel of Vehicle 2.  At impact, the forces exceeded the threshold of the supplemental restraint systems in Vehicle 1, and both air bags deployed.  After impact, Vehicle 2 rotated counterclockwise and the right side of Vehicle 2 side-slapped the left side of Vehicle 1. Vehicle 1 moved forward in an easterly direction and ran off the road and came to final rest heading north-east on the dirt shoulder. After the secondary impact, Vehicle 2 rotated counterclockwise approximately 120 degrees, and came to final rest, heading southwest, across the westbound travel lane.  The air bag in the right front side contacted the right front occupant and caused fatal injuries to him.			
16. Abstract			
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## TECHNICAL SUMMARY

This case was initiated in response to a reported collision in which the right side passenger's air bag deployment caused fatal injuries to the 7 year old right front passenger. This was conducted as an on-scene investigation. This collision occurred in the evening hours on 1996, in DSI was notified on 1996 and the source of the case is unknown.

The roadway is an asphalt, two lane, two way, winding desert roadway with no traffic controls. Vehicle 1 was about to enter a right curve, and Vehicle 2 was exiting a left curve in the roadway. There was a slight uphill grade for Vehicle 1, and a slight downhill grade for Vehicle 2. It had just begun to rain heavily, and lightning was reported in the area. The posted speed limit was 89 km/h (55 MPH).

Vehicle 1 was a 1992 Mercury Sable LS 4-door, driven by a 68 year old male (178 cm / 70 in, 100 kg / 220 lb) and the right front seat was occupied by a 7 year old male (137 cm / 54 in, 26 kg / 57 lb). Vehicle 2 was a 1993 Pontiac Grand Am SE 2-door, driven by a 28 year old male (185 cm / 73 in, 73 kg / 160 lb).

Vehicle 1 was traveling in an easterly direction, and Vehicle 2 was traveling in a westerly direction. Due to the heavy rain, the driver of Vehicle 1 had begun to slow down. The driver of Vehicle 1 saw Vehicle 2 come across the center double yellow line, but did not have time to take evasive action. Vehicle 2 was traveling too fast for the weather conditions. The driver of Vehicle 2 lost control of the vehicle and it entered the eastbound travel lane, directly in front of Vehicle 1. The left front of Vehicle 1 struck the right front quarter panel of Vehicle 2.

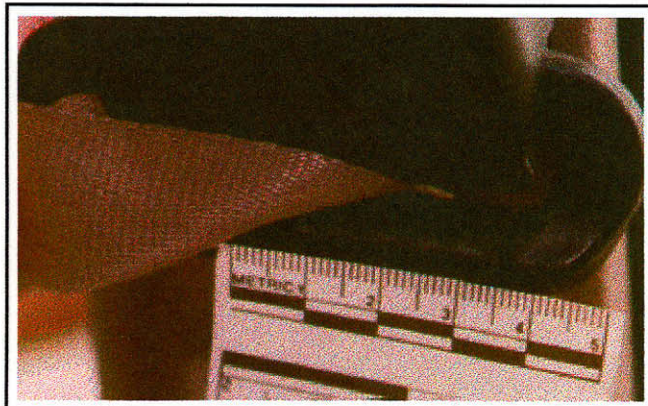
At impact, the forces exceeded the threshold of the supplemental restraint systems in Vehicle 1, and both air bags deployed.

After impact, Vehicle 2 rotated counterclockwise and the right side of Vehicle 2 side-slapped the left side of Vehicle 1. Vehicle 1 moved forward in an easterly direction and ran off the road and came to final rest heading north-east on the dirt shoulder. After the secondary impact, Vehicle 2 rotated counterclockwise approximately 120 degrees, and came to final rest, heading southwest, across the westbound travel lane.

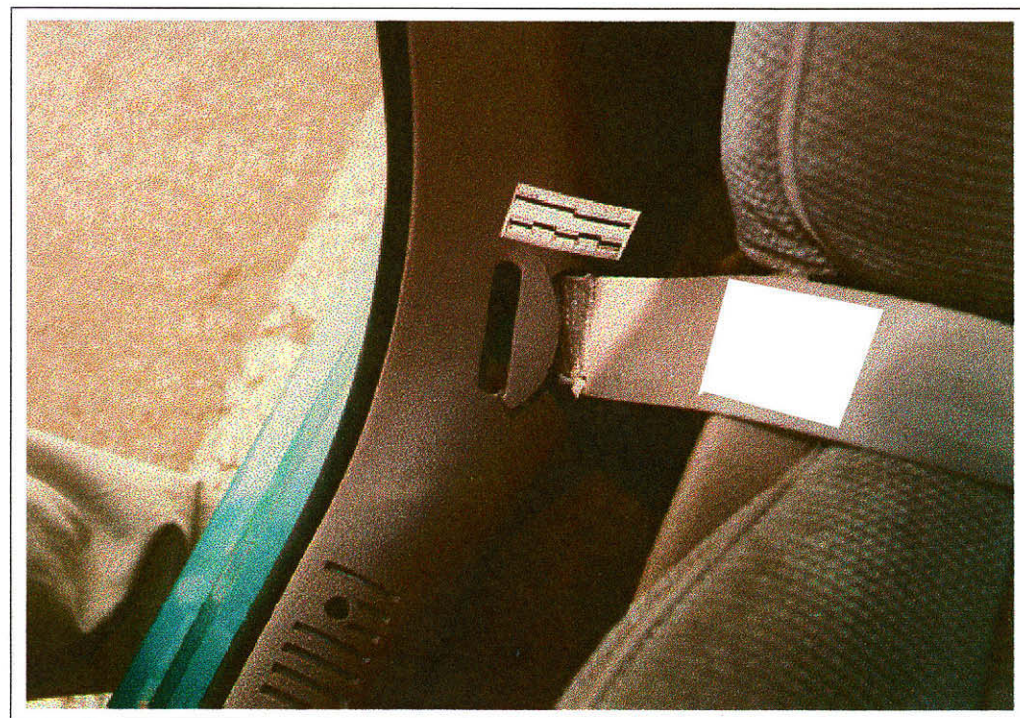
The driver of Vehicle 1 was wearing the available lap/shoulder restraint. The evidence of usage was that the seat belt webbing had been stretched and curled. Also there were blood stains on the lap belt portion of the restraint and seat belt webbing transfer on the D-ring. The driver sustained injuries consisting of lacerations to the back of his head and left arm. The driver does not remember having lacerations or bleeding, but there were blood stains on the driver's air bag, lap belt and the seat. The lacerations to the back of the head may have been caused by the plastic cover across the top of the window frame. It had been displaced laterally towards the driver. The driver also sustained three fractured ribs on his right side which were caused by loading on the lap/shoulder restraint. He had a fractured metatarsal on his right foot that was caused when the toe pan intruded and contacted the brake and accelerator pedals. The fractured left hip presumably resulted from the side slap with Vehicle 2. The driver had abrasions to his chest, and left lower abdomen from contact with the lap/shoulder restraint and the air bag. The driver was transported to an area hospital via ground ambulance and he was hospitalized for approximately a month. Due to his hip replacement, he was in rehabilitation for approximately another month.



The 7 year old right front occupant of Vehicle 1 was wearing the available lap/shoulder restraint. The inspection of Vehicle 1 revealed loading on the seat belt webbing, as well as seat belt webbing transfer marks on the D-ring (see Figure 1). The plastic cover on the lower portion of the seat belt retracting mechanism had been broken off indicating heavy loading on the seat belt (see Figure 2). The driver of Vehicle 1 stated that the child was seated with his back in contact with the seat back, and that the lap/shoulder restraint was worn properly. After the collision, the child was slumped over, still belted in a seated position and unconscious. He was not in the back seat of the vehicle as noted in several of the medical records. The driver of Vehicle 1 further stated that there were no noticeable contusions, abrasions, or redness about the face of the child.



**Figure 1.** D-ring on right front shoulder belt.



**Figure 2.** Right front passenger seat, damage to the plastic molding on the lower portion of the seat belt retracting mechanism.

An off duty paramedic arrived on scene shortly after the collision, and performed CPR for some 15 minutes. When rescue personnel arrived on scene the 7-year-old was unconscious, pale, cyanotic, and in full cardiac arrest. He arrived at the ER in the same condition. Medical records noted no evidence of neck or skull fractures. There were multiple abrasions and contusions (AIS-1) primarily over the right lower quadrant. There was trauma to the upper chest and right clavicle. The trauma was primarily seat belt contusions and abrasions.

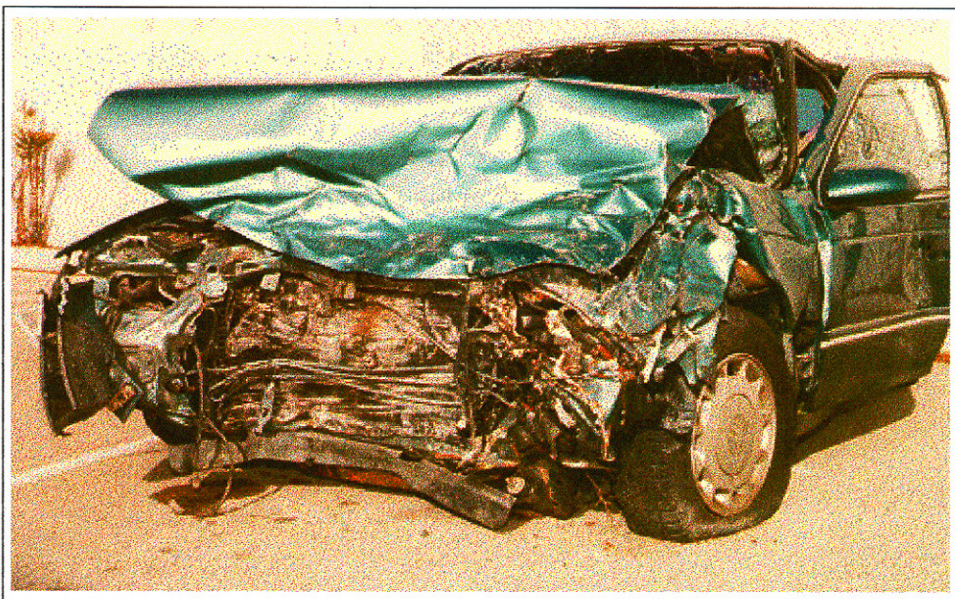
The 7 year old sustained internal massive brain injuries (AIS-5). The autopsy report attributes death to multiple injuries due to blunt force trauma. It states that death is attributed to massive head injury, chest trauma (bilateral pulmonary contusions, AIS-3), and anoxic encephalopathy, brain death. One of the treating physicians indicated that the child “sustained massive whiplash type injuries to his head and neck which caused cerebral edema which resulted in his death.” The cerebral edema and pulmonary contusions are attributed to contact with the air bag.

Initially he was transported via helicopter to an area hospital. One day later he was transported via helicopter to a pediatric intensive care unit of another hospital. He was treated there and expired seven days later on 08/11/96 at 1000 hours.



The traffic collision report indicates that the driver of Vehicle 2 was wearing the available lap and shoulder restraint. He sustained injuries consisting of a laceration on the back of his head, and contusions to his leg and center portion of his chest. He was transported to a local hospital via ground ambulance, where he stayed overnight and was released.

Vehicle 1 sustained total damage to the left front of the vehicle as a result of the first impact with Vehicle 2. A CDC of 11FDEW2 was assigned to the damage pattern (see Figure 3), with a maximum crush of 26 cm (10.2 in) at C<sub>2</sub>. The missing vehicle portion of WinSmash computed a longitudinal Delta V of -36.6 km/h (22.7 mph) for Vehicle 1. Vehicle 1 was towed from the scene due to its damage to a local tow yard, and was then picked up by the attorney representing occupants of Vehicle 1. Vehicle 1 was then towed to the attorney's office where it was outdoors prior to being inspected. Vehicle 1 was inspected more than thirty days after the collision.



**Figure 3.** Damage to Vehicle 1 from impact #1.

Police photographs indicate that Vehicle 2 sustained major damage to its front end, right front quarter panel, right side, right rear quarter panel, and right rear bumper areas as a result of impact with Vehicle 1. A CDC of 02RYEW3 was assigned to the damage pattern for the first impact. The missing vehicle portion of WinSmash computed a Delta V of 46.2 km/h (28.7 mph) for Vehicle 2. Vehicle 2 was towed from the scene due to its damage to a local tow yard, and then sold at a local salvage auction.

**DYNAMIC SCIENCE, INC.**  
**ACCIDENT INVESTIGATION**  
**CASE NUMBER: DS9610**

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**ACCIDENT DATA:**

**Location:**

**Area/Type:** Desert/Rural

**Date/Time:** 1996 / 1813 hours

**Accident Type:** Vehicle to Vehicle / Front to Right Front  
Side; Secondary impact side slap V1's left  
side vs. V2's right rear corner

**Injury Severity:**

**Vehicle 1:** Driver, AIS-2

RF Occupant, AIS-5

**Vehicle 2:** Driver, AIS-1

**AMBIENCE:**

**Viewing Conditions:** Bad visibility due to heavy rain

**Cloud Cover:** Heavy Clouds

**Precipitation:** 100%, Heavy Rain

**Road Surface:** Wet

**ROADWAY:**

	<b>VEHICLE 1</b>	<b>VEHICLE 2</b>
<b>Type:</b>	Two-lane	Two-lane
<b>Width:</b>	7 M (22.9 ft)	7 M (22.9 ft)
<b>Traffic Density:</b>	Moderate	Moderate
<b>Median:</b>	Painted double yellow lines	Painted double yellow lines
<b>Edge:</b>	Painted white edge line, and dirt shoulder	Painted white edge line, and dirt shoulder
<b>Surface:</b>	Asphalt	Asphalt
<b>Reported Defects:</b>	None	None
<b>Co-efficient of Friction (est.):</b>	0.75	0.75
<b>Vertical Alignment:</b>	Slight uphill	Slight downhill
<b>Horizontal Alignment:</b>	Straight	Exiting left curve

**Traffic Controls:**

	<b>VEHICLE 1</b>	<b>VEHICLE 2</b>
<b>Signals:</b>	None	None
<b>Signs:</b>	None applicable	None applicable
<b>Speed Limit:</b>	89 km/h (55 mph)	89 km/h (55 mph)



**VEHICLES:**

	<b>VEHICLE 1</b>	<b>VEHICLE 2</b>
<b>Description:</b>	1992 Mercury Sable LS 4-door	1993 Pontiac Grand Am SE 2-door
<b>Odometer:</b>	100,728 kilometers 62,591 miles	Unknown
<b>Engine:</b>	L6 / 3.8L EFI	L4 / 2.3 L EFI
<b>Vehicle Modifications:</b>	None	None
<b>Tire Condition:</b>	Good	Good
<b>Manual Restraints:</b>	Three-point manual lap/shoulder restraints at LF, RF, LR, and RR seating positions. Two- point manual lap restraint at CF, and CR seating positions.	Three-point manual lap/shoulder at LR, and RR seating positions.
<b>Automatic Restraints:</b>	Driver's and mid- mounted passenger's air bags	Three-point passive door mounted lap/shoulder restraints at LF, RF.
<b>Reported Defects:</b>	None	None
<b>Cargo:</b>	None	None
<b>Windshield Damage:</b>	Cracked by impact forces.	Cracked by impact forces.
<b>Fleet:</b>	No	No
<b>Tow Status:</b>	Towed due to damage	Towed due to damage

**VEHICLE DAMAGE:**  
**Impact #1, Highest Delta-V**

	<b>VEHICLE 1</b>	<b>VEHICLE 2</b>
<b>Object Struck:</b>	Vehicle 2	Vehicle 1
<b>Event Number:</b>	01	01
<b>CDC:</b>	11FDEW2	02RYEW3 estimated from photographs
<b>Maximum Crush:</b>	26.0 cm (10.2 in)	Zone 3, estimated from photographs

**VEHICLE VELOCITY ESTIMATES:**

Summary of Results Using Damage

Vehicle 1	Speed Change (Damage)
Total:	39.0 km/h
Longitudinal:	-36.6 km/h
Latitudinal:	13.3 km/h
PDOF:	-20°
Energy Dissipated:	52,119 Joules
Barrier Equivalent Speed:	27.2 km/h
Moment Arm of Principle Force:	61.0 cm (CW)
Change in Angular Velocity:	1.8 deg/seconds

Used d0 and d1 values estimated from the vehicle size (modified for offset impact).

Vehicle 2	Speed Change (ROLDMISS)
Total:	46.2 km/h
Longitudinal:	-35.4 km/h
Latitudinal:	-29.7 km/h
PDOF:	40°
Energy Dissipated:	186,284 Joules
Barrier Equivalent Speed:	54.9 km/h
Moment Arm of Principle Force:	66.7 cm (CW)
Change in Angular Velocity:	2.4 de/seconds

Used d0 and d 1 values estimated from the vehicle size.

Delta-V's calculated using Oldmiss of WinSmash. Offset impact was checked since it was deemed appropriate in this case. The crush profile used in this case was estimated from measuring above the bumper level. The C-values used in the WinSmash program would result in a borderline reconstruction.



**COLLISION SEQUENCE:**

**Pre-Crash:** This two vehicle collision occurred in 1996 at 1813 hours. The collision occurred on a two-lane, undivided, winding desert road. The east/west roadway consists of an eastbound and a westbound travel lane. This roadway is 7 M (22.9 ft) wide with an asphalt surface. The eastbound travel lane had a slight uphill grade, and the westbound travel lane had a slight downhill grade.

**Crash:** The driver of Vehicle 1 saw Vehicle 2 come across the center double yellow line, but did not have time to take evasive action. The driver of Vehicle 2 lost control of the vehicle and it entered the eastbound travel lane, directly in front of Vehicle 1. The left front of Vehicle 1 struck the right front quarter panel of Vehicle 2. Both air bags in Vehicle 1 deployed at this point. A WinSmash run determined that Vehicle 1 sustained a -36.6 km/h (22.7 mph) longitudinal velocity change. Vehicle 1 continued generally forward while Vehicle 2 was rotated counterclockwise, and there was a second impact, a “side slap” between the left side of Vehicle 1 and the right rear side of Vehicle 2.

**Post Crash:** Vehicle 1 moved forward in an easterly direction and ran off the road and came to final rest heading northeast on the dirt shoulder. After the secondary impact, Vehicle 2 rotated counterclockwise approximately 120 degrees, and came to final rest heading south-west across the westbound travel lane.

The driver of Vehicle 1 noted that there was smoke still coming out of the driver’s air bag. There was an odor of gun powder and he thought that the air bag was going to catch fire.

**RESCUE ACTIVITIES:**Rescue activities

<u>Event</u>	<u>Event Time</u>
Accident	1813
Rescue dispatched	1838
Helicopter dispatched	1838
Rescue arrived	1843
Helicopter arrived	1858
Helicopter left scene	1903
Helicopter arrived at hospital	1908
Time of Death	1000, on 8/10/96

The right front occupant of Vehicle 1 was treated initially at the scene by an off duty paramedic who performed CPR for 15 minutes. R/F occupant was then taken to an area hospital via helicopter. The next day, he was transported via helicopter to a pediatric intensive care unit of another hospital. The drivers of Vehicle 1 and Vehicle 2 were transported via ground ambulance to an area hospital. The driver of Vehicle 1 was hospitalized for approximately a month. The driver of Vehicle 2 was hospitalized overnight and then released.

**Occupant**

**Kinematics: Driver, Vehicle 1** - The driver was seated on a split bench in a normal, upright seated position. At impact, it appears that the driver had his right foot on the accelerator pedal and his left foot on the floor. Both hands were on the steering wheel. He was properly restrained by the available lap/shoulder restraint. During the on-site inspection, it appeared that the left front split bench seat had been adjusted just rearward of the mid-point seat track position. The adjustable seat back recline appeared to have been in a normal upright position. The seat back recline angle was measured at 10 degrees.

At impact, the driver braced. He was projected forward and to the left. His torso loaded the lap/shoulder restraint and his left arm, and face came into contact with the deploying air bag. The watch on his left arm was damaged due to contact with the air bag. It was somehow knocked off his arm, and it can be seen in photo 015. He was wearing glasses and the frames were bent by the contact with the air bag. He does not remember if they were knocked off, but no injuries occurred. He sustained injuries consisting of lacerations to the back of his head and arm. He does not remember having lacerations or bleeding, but there were blood stains on the driver's air bag, lap belt and seat. The laceration to the back of the head may have been caused by the plastic cover across the top window frame. It had been displaced laterally towards the driver. He also sustained three fractured ribs on his right side which were caused by loading on the lap/shoulder restraint. He had a fractured metatarsal on his right foot that was caused when the toe pan intruded and contacted the brake and accelerator pedals. The side slap impact resulted in a fractured left hip. He had abrasions to his chest, and left lower side from loading on the lap/shoulder restraint and air bag. He was transported to an area hospital via ground ambulance and he was hospitalized for approximately a month. Due to his hip replacement, he was in rehabilitation for approximately another month.

**Occupant**

**Kinematics:** **RF Occupant, Vehicle 1** - The driver stated that the right front occupant was seated in an upright normal position with his back up against the right front seat back, and that the lap/shoulder restraint was worn in a normal fashion. The right front split bench seat had been adjusted just rearward of the mid-point seat track position. The adjustable seat back recline was reclined rearward, and the angle was measured at 33 degrees. The inspection of the right front lap/shoulder restraint, and injuries are consistent with him wearing the lap/shoulder restraint. The belt showed curling and stretching from loading. The D-ring was abraded by the seat belt webbing, and the plastic molding around the lower seat belt retracting mechanism was broken due to heavy loading (see photos 99-105). There was no pre-impact braking.

At impact with Vehicle 2, the right front occupant began to move forward closer to the air bag, and loaded heavily on the lap/shoulder restraint. The right front air bag deployed and contacted his chest area. The driver stated that there were no noticeable contusions, abrasions, or redness about the child's face. As the air bag continued its unfolding sequence, it "snapped" and accelerated the child's head rearward. One of the treating physicians indicated that the child "sustained massive whiplash type injuries to his head and neck which caused cerebral edema which resulted in his death."

As the head was accelerated rearward, the brain struck the front of the skull causing massive brain edema, subdural hemorrhage, ventricular hemorrhage, and subarachnoid hemorrhage. This led to anoxic encephalopathy, and then brain death. The child also sustained bilateral pulmonary contusions to the upper lobe, and a cardiac contusion as a result of contact with the air bag. He had multiple contusions and abrasions about his chest and lower abdomen attributed to the seat belt webbing.

After the collision the child was slumped over, still belted in a seated position and unconscious. He was not in the back seat of the vehicle as noted in several of the medical records. An off duty paramedic arrived on scene shortly after the collision, and performed CPR for some 15 minutes. When rescue personnel arrived on scene the 7-year-old was unconscious, pale, cyanotic, and in full cardiac arrest. He arrived at the ER in the same condition, and he never regained consciousness. He expired seven days later.

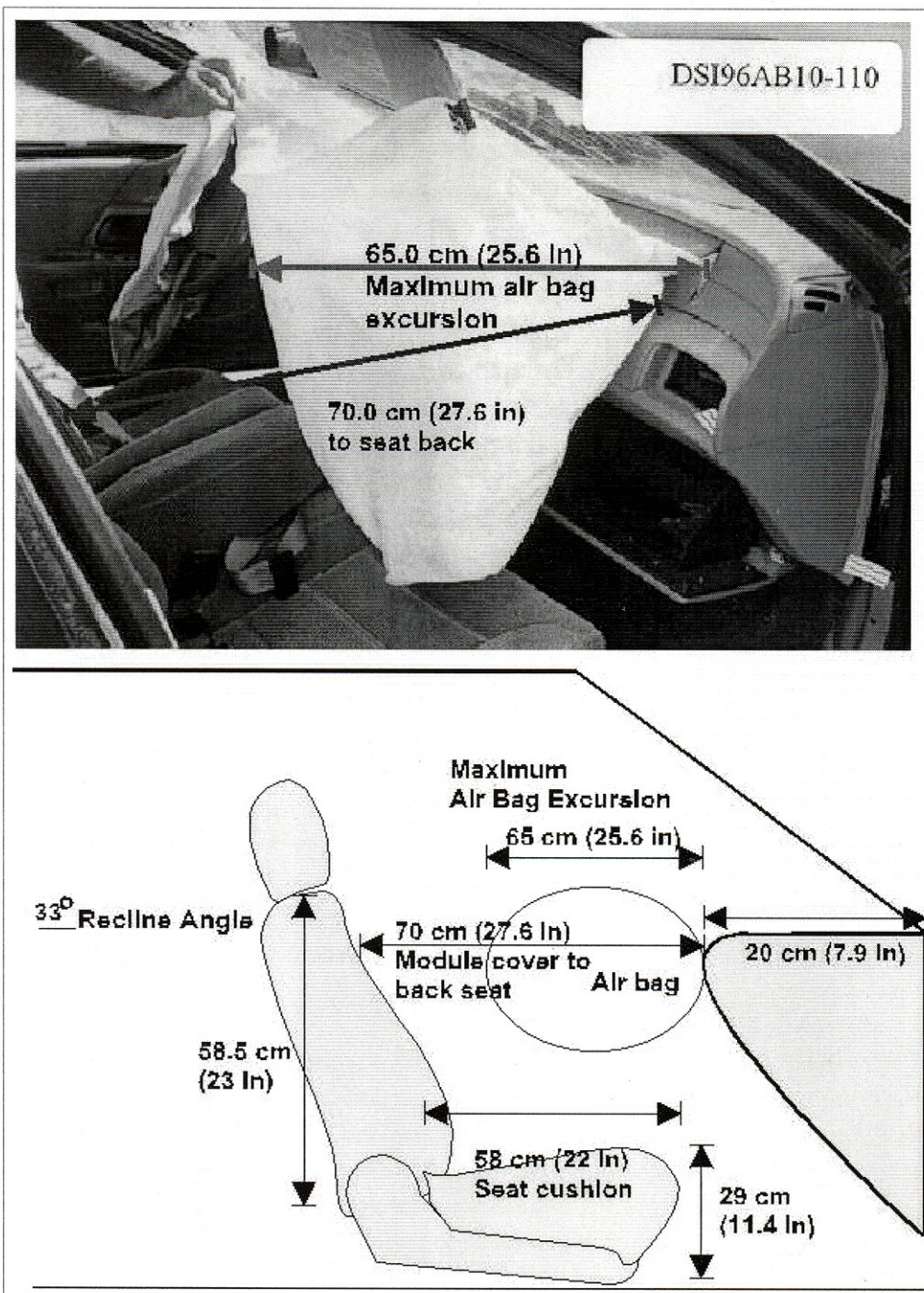


Figure 4. Measurements of right front seat position and air bag.

**Air bag System:**

Vehicle 1 was equipped with two air bags, one in the steering wheel hub and one on the right front passenger side. The driver's air bag had a 58.5 cm (23 in) diameter. There were two symmetrical module cover flaps. The upper cover measured 20.5 (8.1 in) x 16.5 cm (6.5 in). There were two air vent ports at the 11 and 1 o'clock positions. The lower cover measured 20.5 (8.1 in) x 7.9 cm (3.1 in).

The right front passenger's air bag was a mid-mounted configuration. The air bag measured 81.5 cm (32.1 in) x 40 cm (15.7 in). There were two symmetrical module cover flaps. The upper flap cover measured 31.3 cm (12.3 in) x 5.5 cm (2.2 in), and the lower flap cover measured 31.3 cm (12.3 in) x 5.5 cm (2.2 in). There were two air vent ports on the left side (inboard) of the air bag, at the 10 and 8 o'clock positions.

The driver of Vehicle 1 noted that there was smoke still coming out of the driver's air bag. There was an odor of gun powder and he thought that the air bag was going to catch fire.

**Scene Clearance:**

Both vehicle were towed from the scene due to damage and were placed in police storage. Vehicle 1 was then taken to the office of the attorney representing the occupants, and was stored outdoors for several months prior to the vehicle inspection. Vehicle 2 was then taken to a auction salvage lot, were it was sold.

**Safety Standards:**

There were no violations of Federal Motor Vehicle Safety Standards and Regulations found during the inspection of Vehicle 1.



**DRIVER AND OTHER OCCUPANTS:****VEHICLE 1**

	<b>DRIVER</b>	<b>OCCUPANT 2</b>
<b>Age/Sex:</b>	68/Male	7/Male
<b>Seated Position:</b>	Left front	Right front
<b>Seat Type:</b>	Split Bench	Split Bench
<b>Height:</b>	178 cm (70 in)	137 cm (54 in), per autopsy report
<b>Weight:</b>	100 kg (220 lbs)	26 kg (57 lbs), per autopsy report
<b>Additional Measurements:</b>		
Erect Sitting Height	NA	65.8 cm (25.9 in) <sup>1</sup>
Buttock-knee Length	NA	39.1 cm (15.4 in) <sup>1</sup>
<b>Occupation:</b>	Retired	Not employed
<b>Pre-existing Medical Condition:</b>	Unknown	Significant history of wheezing episodes, and had an unspecified head injury at age 5 <sup>2</sup>
<b>Alcohol/Drug Involvement:</b>	None	NA
<b>Driving Experience:</b>	~52 years	NA
<b>Body Posture:</b>	Normal, upright	Normal, upright
<b>Hand Position:</b>	Both on steering wheel,	NA
<b>Foot Position:</b>	Right foot on accelerator	NA
<b>Restraint Usage:</b>	Lap/shoulder belt used	Lap/shoulder belt used
<b>Additional Occupants:</b>	None	None

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<sup>1</sup>*Anthropometry of Infants, Children, and Youths to Age 18 for Product Safety Design*

<sup>2</sup>As noted on Hospital records

**DRIVER AND OTHER OCCUPANTS (con't):**

**VEHICLE 2**

**DRIVER**

<b>Age/Sex:</b>	28/Male
<b>Seated Position:</b>	Left front
<b>Seat Type:</b>	Bucket with folding back
<b>Height:</b>	185 cm (73 in)
<b>Weight:</b>	73 kg (160 lbs)
<b>Occupation:</b>	Unknown
<b>Pre-existing Medical Condition:</b>	Unknown
<b>Alcohol Involvement:</b>	None
<b>Driving Experience:</b>	≈5 years
<b>Body Posture:</b>	Unknown
<b>Hand Position:</b>	Unknown
<b>Foot Position:</b>	Unknown
<b>Restraint Usage:</b>	Lap/shoulder restraints used traffic collision report
<b>Additional Occupants:</b>	None

**INJURIES:****Vehicle 1**

	<b><u>INJURY</u></b>	<b><u>OIC CODE</u></b>	<b><u>ICD-9</u></b>	<b><u>SOURCE</u></b>
<b>DRIVER:</b>	Fractured left hip	852600.2,2	820.8	Left side door
	3 fractured ribs on the right side	450220.2,1	807.03	Seat belt
	Fractured right metatarsal	852200.2,1	825.20	Foot pedal
	Abrasions across chest	490202.1,4	911.0	Seat belt webbing/Air bag
	Abrasion to lower left side of abdomen	590202.1,8	911.0	Seat belt webbing
	Laceration to back of head	190600.1,3	873.0	Window frame plastic covering
	Laceration to left arm	790600.1,2	880.03	Air bag
<b>R/F OCCUPANT:</b>	Massive brain edema	140674.5,9	348.5	Air bag
	Loss of consciousness/Unconscious on admission or initial observation at scene. Length of consciousness > 24 hours.	160818.5, 0	854.05	Air bag
	Subdural hemorrhage	140650.4,9	852.25	Air bag
	Ventricular hemorrhage	140678.4,9	852.25	Air bag
	Bilateral pulmonary contusion to upper lobe	441410.4,3	518.4	Air bag
	Cardiac contusion	441002.3,4	861.01	Air bag
	Subarachnoid hemorrhage	140684.3,9	852.05	Air bag
	Multiple abrasions over the right lower abdomen	590202.1,8	911.0	Seat belt webbing

Multiple contusions over the right lower abdomen	590402.1,8	922.2	Seat belt webbing
Contusions over chest in the seat belt position	490402.1,4	922.1	Seat belt webbing

**INJURIES:****Vehicle 2**

	<b><u>INJURY</u></b>	<b><u>OIC CODE</u></b>	<b><u>ICD-9</u></b>	<b><u>SOURCE</u></b>
<b>DRIVER:</b>	Laceration to back of head	190600.1, 3	873.0	Unknown
	Contusion to leg	890402.1,9	924.5	Unknown
	Contusion to chest	490402.1,4	922.1	Seat belt webbing

### **Abbreviations Used In Scene And Photographic Documentation**

ft	Feet
in	Inches
AIS	Abbreviated Injury Scale
BLF	Begin Left Front
BLR	Begin Left Rear
BRF	Begin Right Front
BRR	Begin Right Rear
CBE	Cab Behind Engine
CCW	Counterclockwise
CDC	Collision Deformation Classification
CG	Center of Gravity
CM	Centimeter
COE	Cab Over Engine
CW	Clockwise
E, EB	East, Eastbound
ELF	End Left Front
ELR	End Left Rear
ERF	End Right Front
ERR	End Right Rear
FRP	Final Rest Position
I	Interstate Highway
IP	Intermediate Point
KG	Kilogram
KPH	Kilometers Per Hour
LF	Left Front
LR	Left Rear
M	Meter
N, NB	North, Northbound
NE	Northeast
NW	Northwest
PDOF	Principal Direction of Force
POI	Point of Impact
R	Radius of Curvature
RF	Right Front
RL	Reference Line
RP	Reference Point
RR	Right Rear
S, SB	South, Southbound
SE	Southeast
SW	Southwest
T	Time or Elapsed Time (in seconds)
V1	Vehicle Number 1
W, WB	West, Westbound

**COLLISION MEASUREMENTS**  
**Taken from the Police Accident Report**

Reference Point: East Curb Line of North/South roadway	Reference Line: South Fog Line	
ITEM	Distance and Direction from RP	Distance and Direction from RL
Area of Impact #1 Front of Vehicle 1 and right side of Vehicle 2	66.4 m (218') East	2.3 m (7'7") North
Point of rest for Vehicle 1		
R/F tire	69.8 m (229') East	3.4 m (11'2") South
R/R tire	67.4 m (221') East	4.9 m (16') South
L/F tire	69.6 m (226'8") East	2.2 m (7'2") South
L/R tire	66.4 m (218') East	3.4 m (11'3") South
Point of rest for Vehicle 2		
R/F tire	67.9 m (222'11") East	6 m (19'7") North
R/R tire	70.1 m (230') East	At the North fog line
L/F tire	68.9 m (226') East	3.3 m (13'10") North
L/R tire	70.6 m (231'8") East	6 m (19'9") North

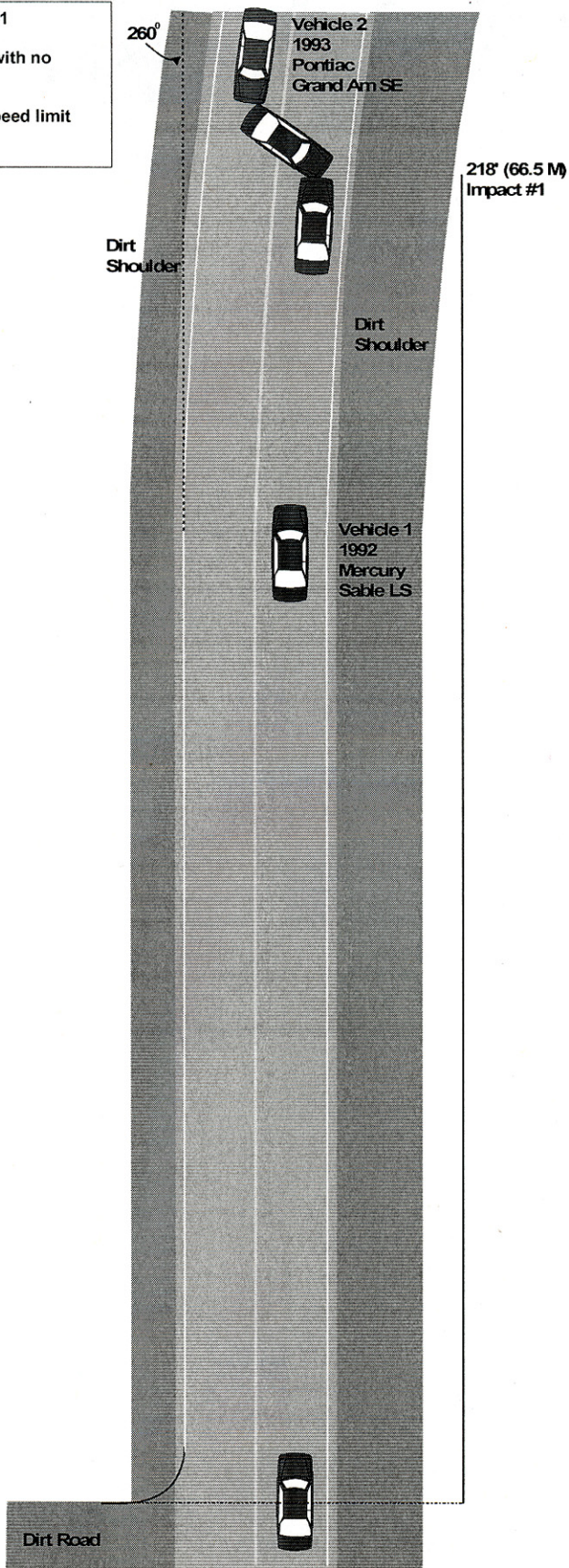
Scene Diagram page 1

DS9610      Impact #1

Asphalt wet surface, with no traffic controls.

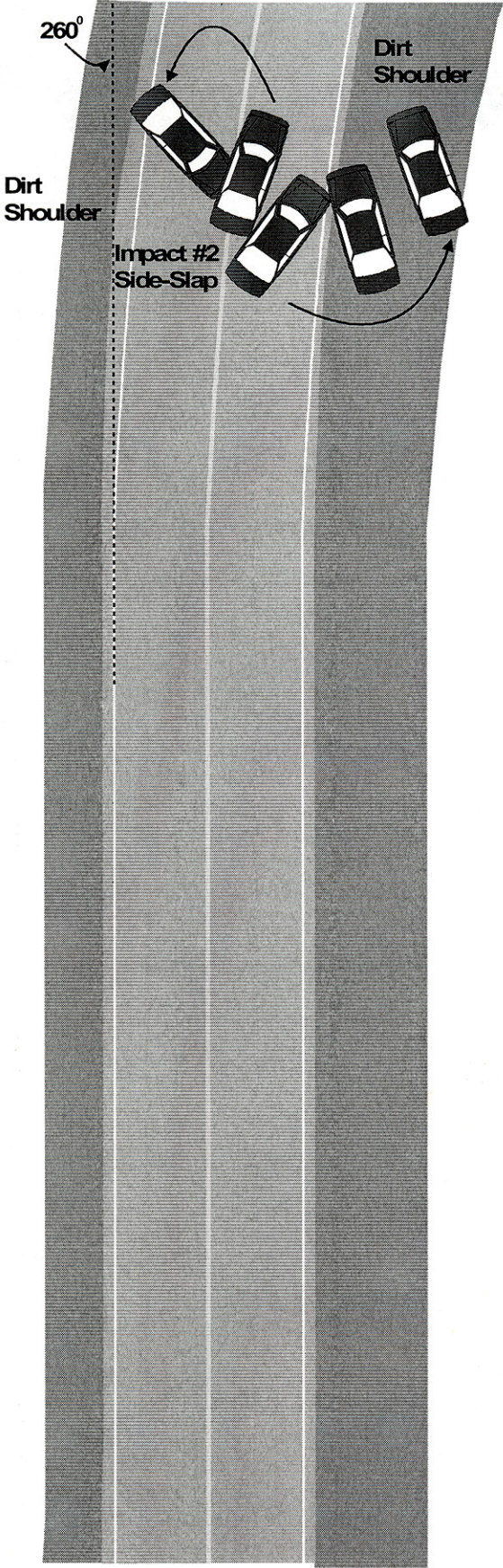
88.5 km/h (55 mph) Speed limit

1" = 20' Scale





DS9610  
Impact #2 and Final Rest





## PHOTO INDEX

Case No. DS9610

PHOTO NO.	VEHICLE NO.	DIRECTION OF PICTURE	SUBJECT MATTER
			<b>The following photographs were taken by the police at the scene, and at the tow yard of both vehicles.</b>
001-005	1		Exterior of vehicle at final rest.
006-010	1		Interior of vehicle, driver's position.
011-015	1		Interior of vehicle, at right front position.
019-033	2		Exterior of vehicle, both at final rest and the tow yard.
034-039	2		Interior of vehicle. <b>**Note photo 038</b> , speedometer locked at 128.7 km/m (80 mph).
			<b>The following photographs were taken by the investigator.</b>
040-042	1	East	Direction of travel towards impact area.
043	1	East	Impact area.
044	1	East	Final rest area.
045	1	West	Opposite direction of travel from final rest area.
046-047	2	West	Direction of travel towards impact area.
048	2	South-West	Impact area #1.
049	2	West	Counterclockwise rotation.
050-051	2	South-West	Final rest area. Tires marked per police measurements.
052	2	North-East	Opposite direction from final rest.
053	2	West	Opposite direction of travel.
054-072	1	NA	Exterior damage.
073-079	1	NA	Exterior damage with crush measuring stands at bumper mounting brackets, and radiator support rail.

080-097	1	NA	Interior looking at driver's area.
098-113	1	NA	Interior looking at right front area.
114-120	1	NA	Interior looking at driver's area and roof.
121-123	1	NA	Interior looking at right front area.
124-126	1	NA	Interior rear seats.



DSI96AB10-001  
Police Photos



DSI96AB10-0002  
Police Photos





DSI96AB10-003  
Police Photos



DSI96AB10-004  
Police Photos



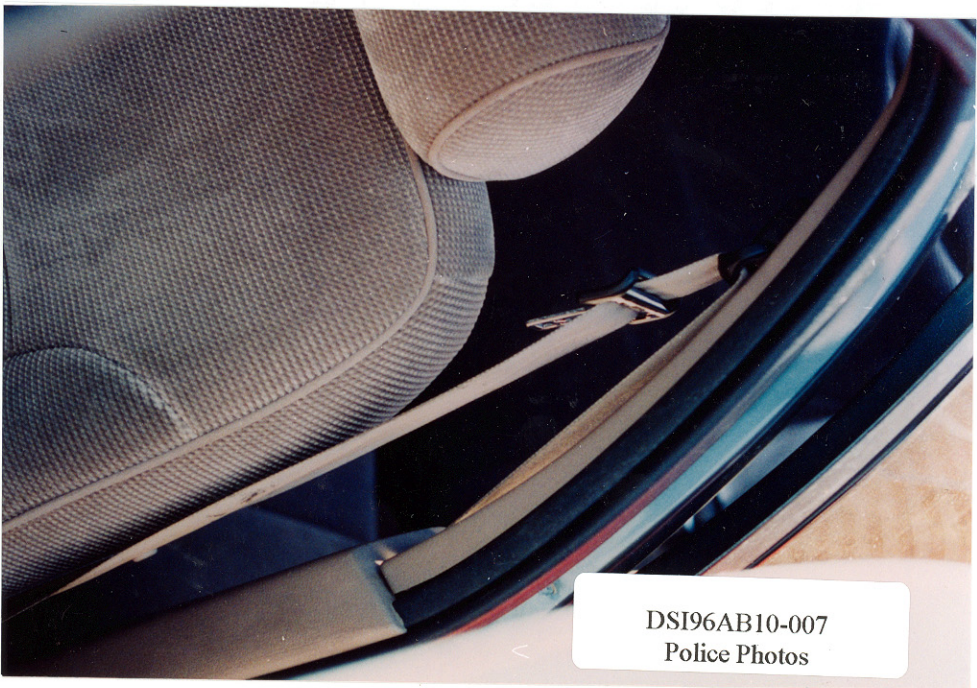
DSI96AB10-005  
Police Photos



DSI96AB10-006  
Police Photos











DSI96AB10-009  
Police Photos



DSI96AB10-010  
Police Photos







DSI96AB10-013  
Police Photos



DSI96AB10-014  
Police Photos







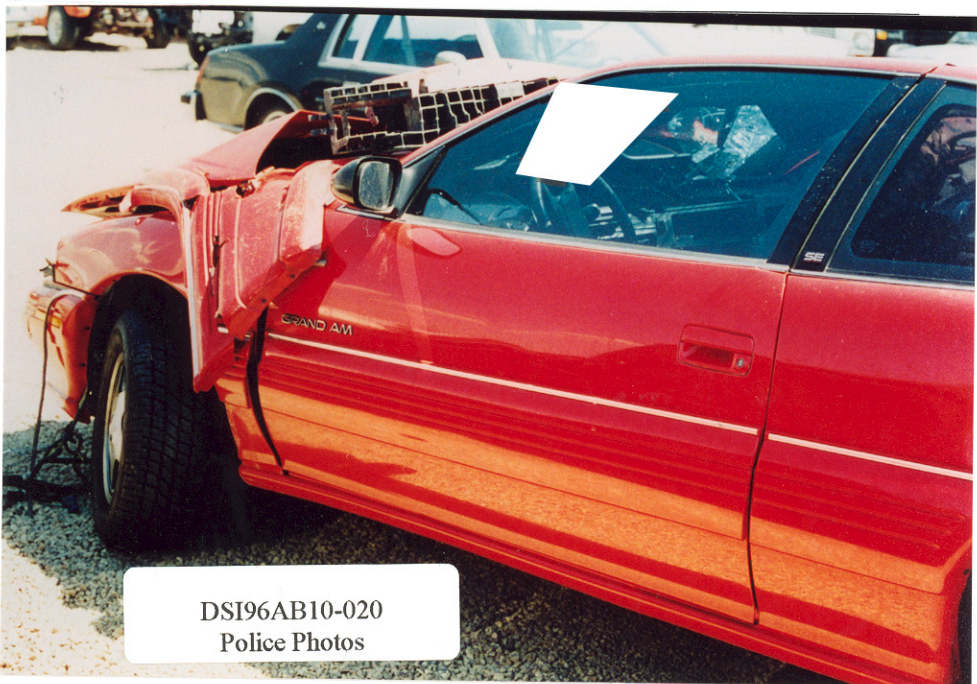








DSI96AB10-019  
Police Photos



DSI96AB10-020  
Police Photos



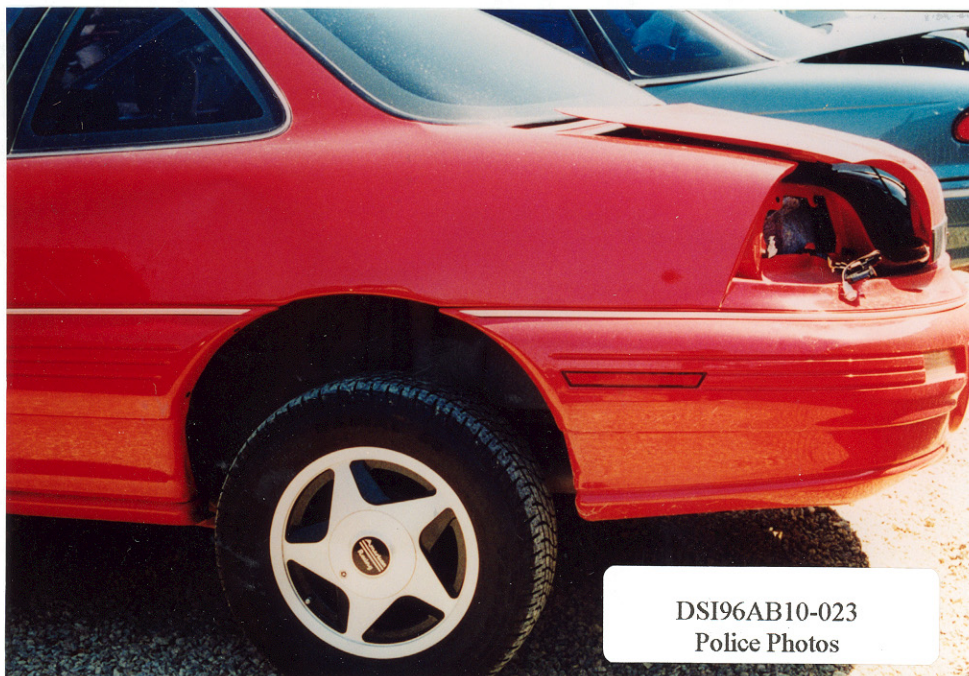


DSI96AB10-021  
Police Photos



DSI96AB10-022  
Police Photos



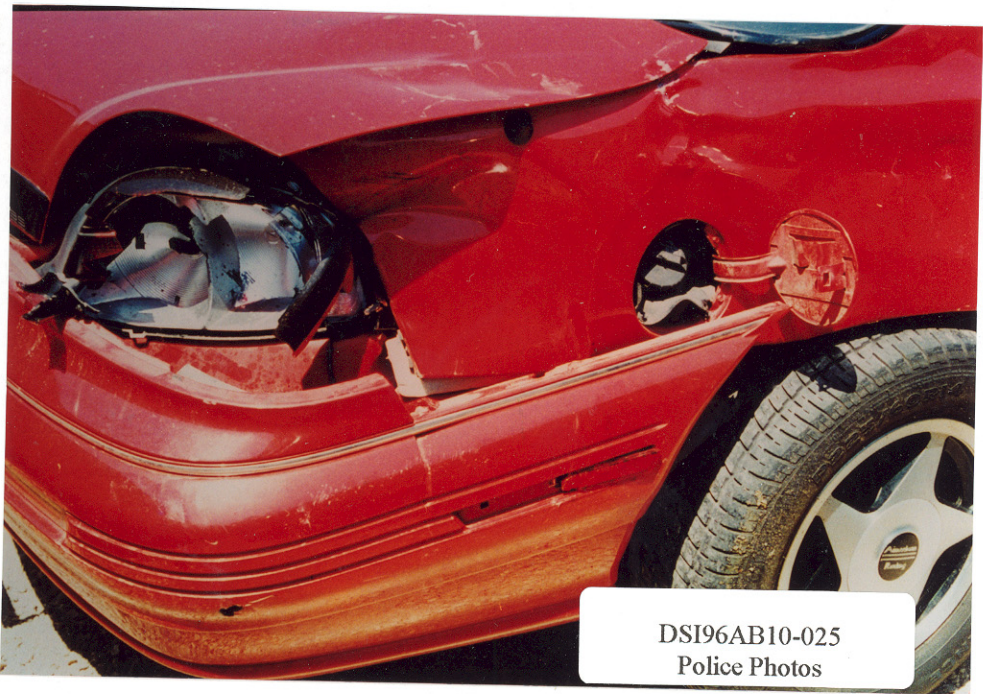


DSI96AB10-023  
Police Photos



DSI96AB10-024  
Police Photos







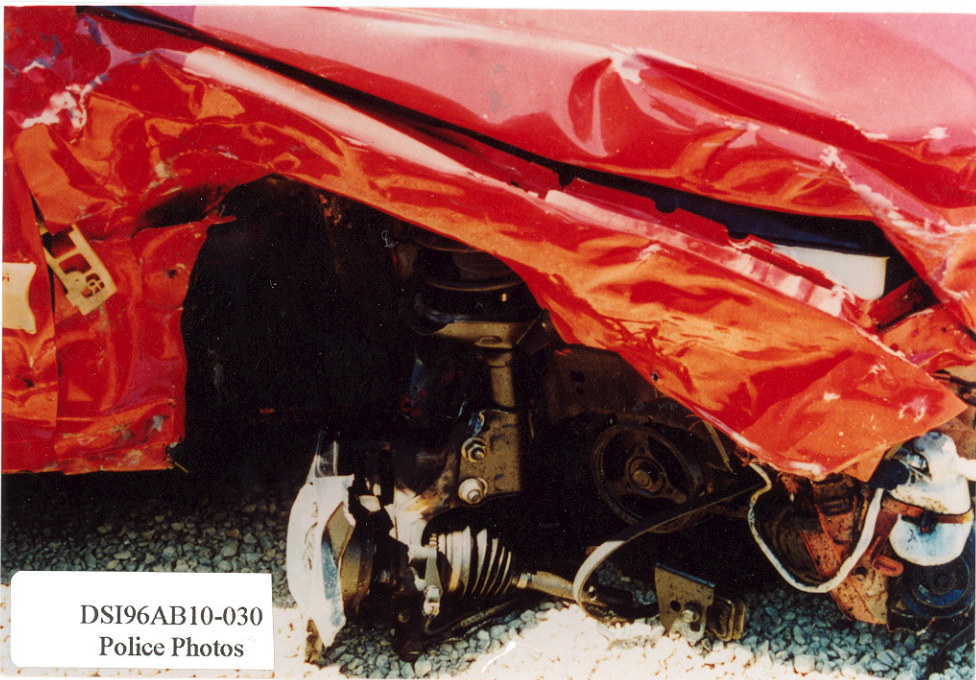




DSI96AB10-029  
Police Photos



DSI96AB10-030  
Police Photos







DSI96AB10-031  
Police Photos



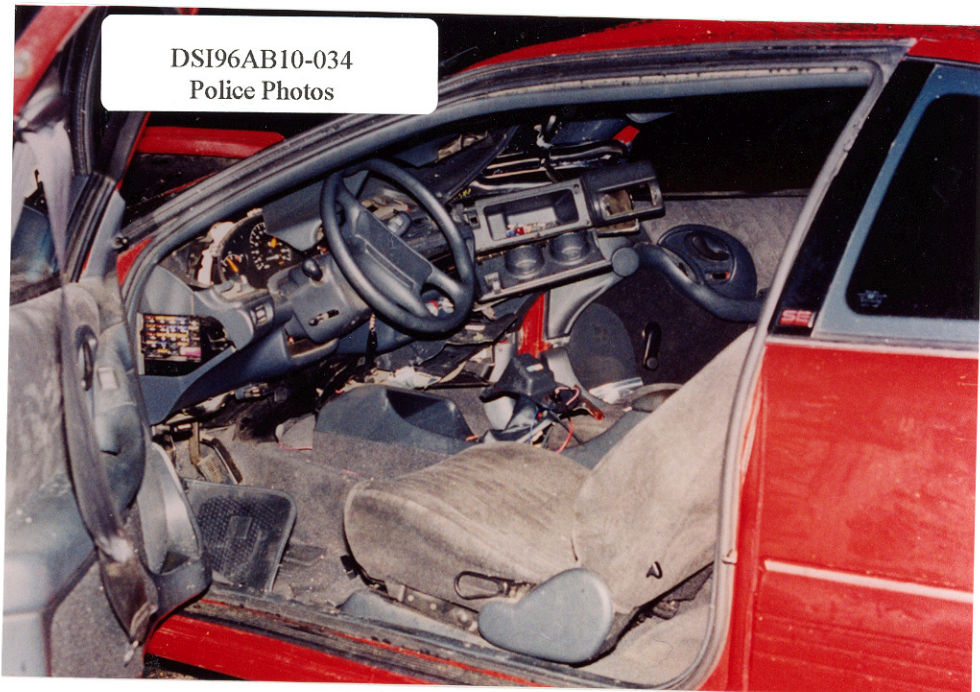
DSI96AB10-032  
Police Photos



DSI96AB10-033  
Police Photos



DSI96AB10-034  
Police Photos





DSI96AB10-035  
Police Photos



DSI96AB10-036  
Police Photos



























DSI96AB10-049



DSI96AB10-050





DSI96AB10-051



DSI96AB10-052





DSI96AB10-053



DSI96AB10-054





DSI96AB10-055



DSI96AB10-056











DSI96AB10-061



DSI96AB10-062









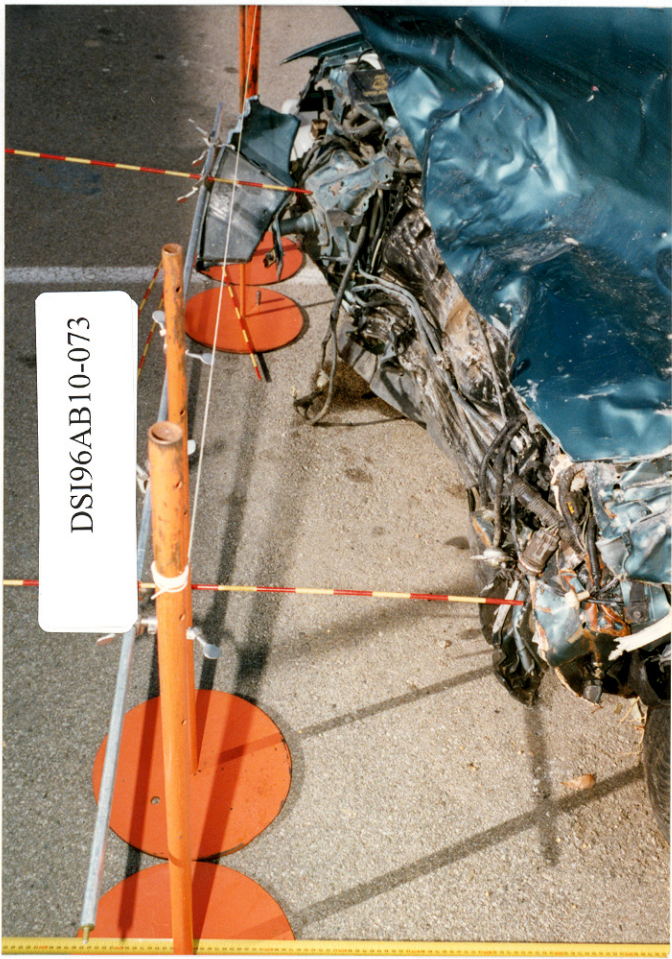




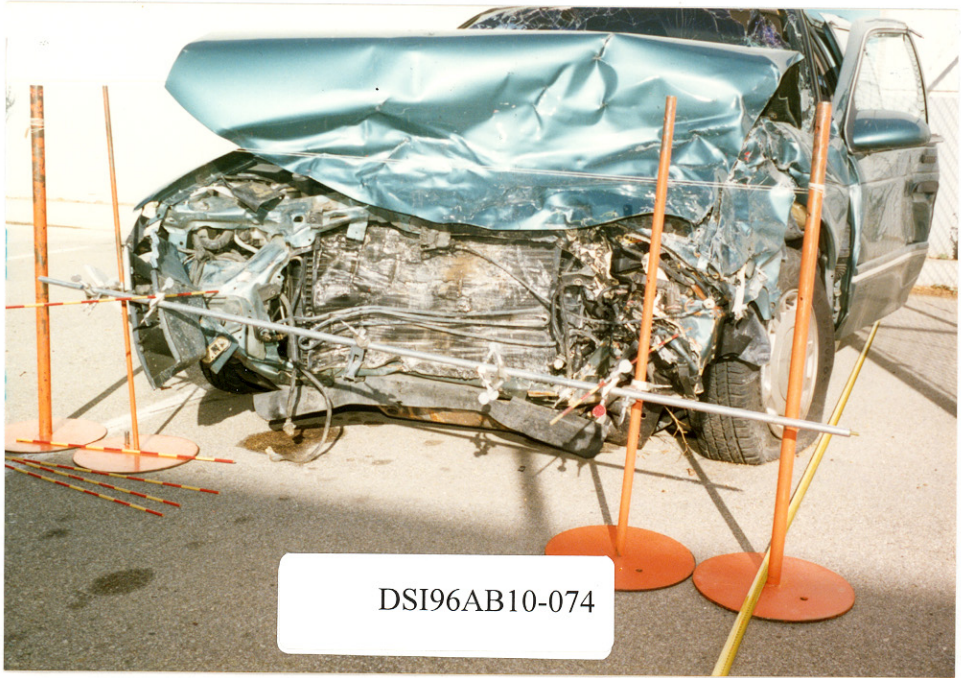








DSI96AB10-073



DSI96AB10-074









DSI96AB10-077



DSI96AB10-078





DSI96AB10-079



DSI96AB10-080





DSI96AB10-081



DSI96AB10-082



















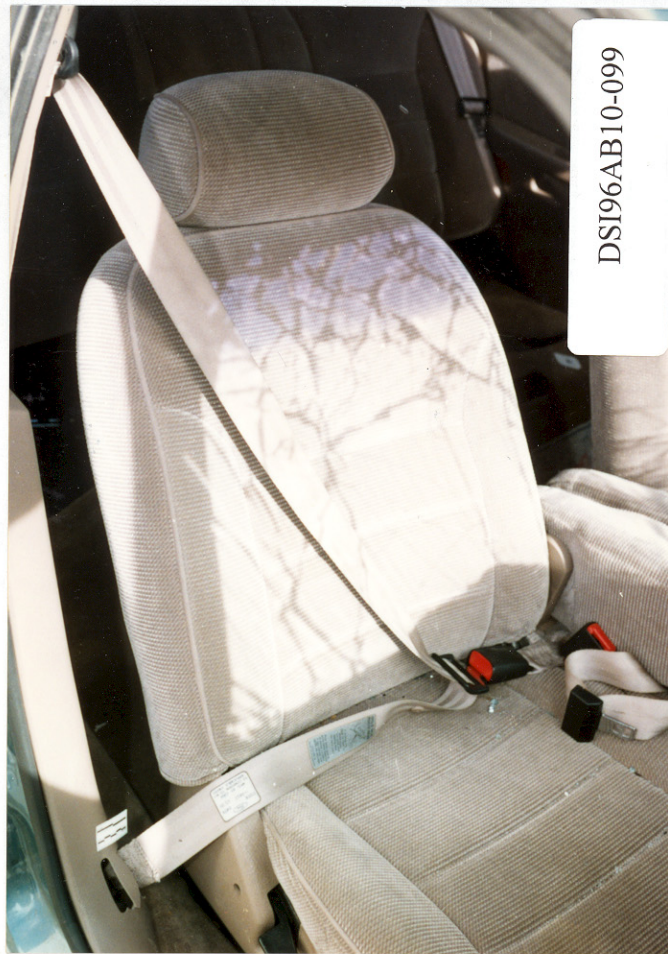


















DSI96AB10-103



DSI96AB10-104

















DSI96AB10-113

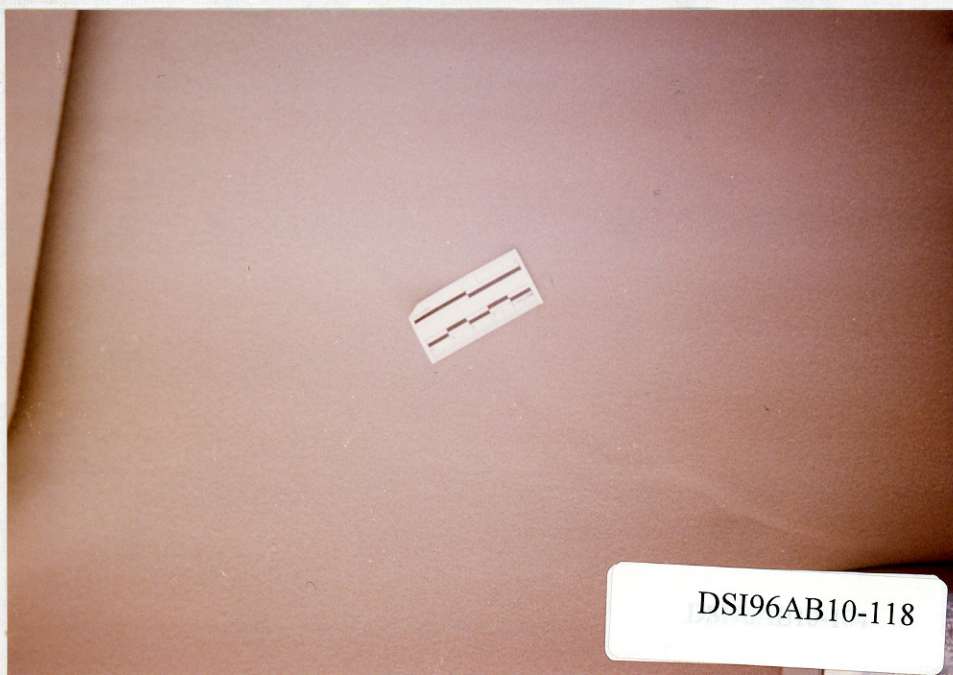


DSI96AB10-114













DSI96AB10-119

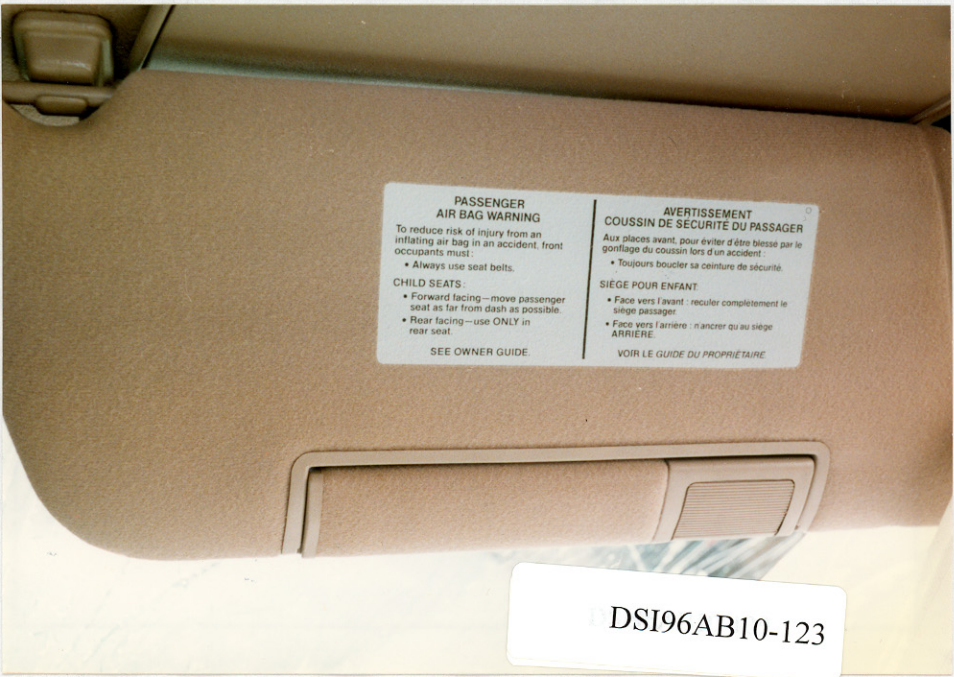


DSI96AB10-120















## ACCIDENT FORM

1. Primary Sampling Unit Number \_\_\_\_\_

2. Case Number - Stratum D69610 \_\_\_\_\_

## IDENTIFICATION

3. Number of General Vehicle  
Forms Submitted 024. Date of Accident  
(Month, Day, Year) 1 / 9 / 65. Time of Accident 1813

Code reported military time of accident.

NOTE: Midnight = 2400  
Unknown = 9999

## SPECIAL STUDIES - INDICATORS

Check (✓) each special study (SS15-SS18 below) that has been completed; code 1 for the checked special studies and 0 for the special studies not checked.

6. \_\_\_\_\_ SS15 Administrative Use 07. \_\_\_\_\_ SS16 Pedestrian Crash Data Study 0  
(Data for this special study available  
in a separate file.)8. \_\_\_\_\_ SS17 Impact Fires 09. \_\_\_\_\_ SS18 Unsafe Driver Actions 010. \_\_\_\_\_ SS19 \_\_\_\_\_ 0

## NUMBER OF EVENTS

11. Number of Recorded Events  
in This Accident 02Code the number of events which occurred  
in this accident.

## ACCIDENT EVENTS

For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object in the right columns.

Accident Event Sequence Number	Vehicle Number	Class Of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class Of Vehicle	General Area of Damage
12. <u>01</u>	13. <u>01</u>	14. <u>03</u>	15. <u>F</u>	16. <u>02</u>	17. <u>02</u>	18. <u>R</u>
19. <u>02</u>	20. <u>01</u>	21. <u>03</u>	22. <u>L</u>	23. <u>02</u>	24. <u>02</u>	25. <u>R</u>
26. <u>03</u>	27. _____	28. _____	29. _____	30. _____	31. _____	32. _____
33. <u>04</u>	34. _____	35. _____	36. _____	37. _____	38. _____	39. _____
40. <u>05</u>	41. _____	42. _____	43. _____	44. _____	45. _____	46. _____

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENT SUPPLEMENT



### CODES FOR CLASS OF VEHICLE

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>(00) Not a motor vehicle</li> <li>(01) Subcompact/mini (wheelbase &lt; 254 cm)</li> <li>(02) Compact (wheelbase ≥ 254 but &lt; 265 cm)</li> <li>(03) Intermediate (wheelbase ≥ 265 but &lt; 278 cm)</li> <li>(04) Full size (wheelbase ≥ 278 but &lt; 291 cm)</li> <li>(05) Largest (wheelbase ≥ 291 cm)</li> <li>(09) Unknown passenger car size</li> <li>(14) Compact utility vehicle</li> <li>(15) Large utility vehicle (≤ 4,500 kgs GVWR)</li> <li>(16) Utility station wagon (≤ 4,500 kgs GVWR)</li> <li>(19) Unknown utility type</li> <li>(20) Minivan (≤ 4,500 kgs GVWR)</li> <li>(21) Large van (≤ 4,500 kgs GVWR)</li> <li>(24) Van Based school bus (≤ 4,500 kgs GVWR)</li> <li>(28) Other van type (≤ 4,500 kgs GVWR)</li> <li>(29) Unknown van type (≤ 4,500 kgs GVWR)</li> <li>(30) Compact pickup truck (≤ 4,500 kgs GVWR)</li> </ul> | <ul style="list-style-type: none"> <li>(31) Large pickup truck (≤ 4,500 kgs GVWR)</li> <li>(38) Other pickup truck (≤ 4,500 kgs GVWR)</li> <li>(39) Unknown pickup truck type (≤ 4,500 kgs GVWR)</li> <li>(45) Other light truck (≤ 4,500 kgs GVWR)</li> <li>(48) Unknown light truck type (≤ 4,500 kgs GVWR)</li> <li>(49) Unknown light vehicle type</li> <li>(50) School bus (excludes van based)(&gt; 4,500 kgs GVWR)</li> <li>(58) Other bus (&gt; 4,500 kgs GVWR)</li> <li>(59) Unknown bus type</li> <li>(60) Truck (&gt; 4,500 kgs GVWR)</li> <li>(67) Tractor without trailer</li> <li>(68) Tractor-trailer(s)</li> <li>(78) Unknown medium/heavy truck type</li> <li>(79) Unknown light/medium/heavy truck type</li> <li>(80) Motored cycle</li> <li>(90) Other vehicle</li> <li>(99) Unknown</li> </ul> |
|--|--|

### CODES FOR GENERAL AREA OF DAMAGE (GAD)

- |  |  |   |   |
|--|--|---|---|
| <b>CDS APPLICABLE<br/>AND OTHER<br/>VEHICLES</b> | <ul style="list-style-type: none"> <li>(O) Not a motor vehicle</li> <li>(N) Noncollision</li> <li>(F) Front</li> </ul> | <ul style="list-style-type: none"> <li>(R) Right side</li> <li>(L) Left side</li> <li>(B) Back</li> </ul> | <ul style="list-style-type: none"> <li>(T) Top</li> <li>(U) Undercarriage</li> <li>(9) Unknown</li> </ul> |
|--|--|---|---|
- 
- |  |  |   |   |
|--|--|---|---|
| <b>TDC<br/>APPLICABLE<br/>VEHICLES</b> | <ul style="list-style-type: none"> <li>(O) Not a motor vehicle</li> <li>(N) Noncollision</li> <li>(F) Front</li> <li>(R) Right side</li> </ul> | <ul style="list-style-type: none"> <li>(L) Left side</li> <li>(B) Back of unit with cargo area<br/>(rear of trailer or straight truck)</li> <li>(D) Back (rear of tractor)</li> </ul> | <ul style="list-style-type: none"> <li>(C) Rear of cab</li> <li>(V) Front of cargo area</li> <li>(T) Top</li> <li>(U) Undercarriage</li> <li>(9) Unknown</li> </ul> |
|--|--|---|---|

### CODES FOR VEHICLE NUMBER OR OBJECT CONTACTED

- |  |   |
|--|---|
| <p>(01-30) — Vehicle Number</p> <p><b>Noncollision</b></p> <ul style="list-style-type: none"> <li>(31) Overturn — rollover (excludes end-over-end)</li> <li>(32) Rollover — end-over-end</li> <li>(33) Fire or explosion</li> <li>(34) Jackknife</li> <li>(35) Other intraunit damage (specify): _____</li> <li>(36) Noncollision injury _____</li> <li>(38) Other noncollision (specify): _____</li> <li>(39) Noncollision — details unknown _____</li> </ul> <p><b>Collision With Fixed Object</b></p> <ul style="list-style-type: none"> <li>(41) Tree (≤ 10 cm in diameter)</li> <li>(42) Tree (&gt; 10 cm in diameter)</li> <li>(43) Shrubbery or bush</li> <li>(44) Embankment</li> <li>(45) Breakaway pole or post (any diameter)</li> </ul> <p><b>Nonbreakaway Pole or Post</b></p> <ul style="list-style-type: none"> <li>(50) Pole or post (≤ 10 cm in diameter)</li> <li>(51) Pole or post (&gt; 10 cm but ≤ 30 cm in diameter)</li> <li>(52) Pole or post (&gt; 30 cm in diameter)</li> <li>(53) Pole or post (diameter unknown)</li> <li>(54) Concrete traffic barrier</li> <li>(55) Impact attenuator</li> <li>(56) Other traffic barrier (includes guardrail)<br/>(specify): _____</li> </ul> | <ul style="list-style-type: none"> <li>(57) Fence</li> <li>(58) Wall</li> <li>(59) Building</li> <li>(60) Ditch or culvert</li> <li>(61) Ground</li> <li>(62) Fire hydrant</li> <li>(63) Curb</li> <li>(64) Bridge</li> <li>(68) Other fixed object (specify): _____</li> <li>(69) Unknown fixed object _____</li> </ul> <p><b>Collision with Nonfixed Object</b></p> <ul style="list-style-type: none"> <li>(70) Passenger car, light truck, van, or other vehicle not in-transport</li> <li>(71) Medium/heavy truck or bus not in-transport</li> <li>(72) Pedestrian</li> <li>(73) Cyclist or cycle</li> <li>(74) Other nonmotorist or conveyance _____</li> <li>(75) Vehicle occupant _____</li> <li>(76) Animal</li> <li>(77) Train</li> <li>(78) Trailer, disconnected in transport</li> <li>(79) Object fell from vehicle in-transport</li> <li>(88) Other nonfixed object (specify): _____</li> <li>(89) Unknown nonfixed object _____</li> <li>(98) Other event (specify): _____</li> <li>(99) Unknown event or object _____</li> </ul> |
|--|---|



# GENERAL VEHICLE FORM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

## VEHICLE IDENTIFICATION

4. Vehicle Model Year

Code the last two digits of the model year  
(99) Unknown

5. Vehicle Make (specify):

MERCURY  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(99) Unknown

6. Vehicle Model (specify):

SABLE  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(999) Unknown

7. Body Type

Note: Applicable codes may be found on  
the back of this page.

8. Vehicle Identification Number

1MELM5345N6XXXXXX  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17  
Left justify; Slash zeros and letter Z (0 and Z)  
No VIN—Code all zeros  
Unknown—Code all nines

9. Vehicle Special Use (This Trip)

- (0) No special use  
(1) Taxi  
(2) Vehicle used as school bus  
(3) Vehicle used as other bus  
(4) Military  
(5) Police  
(6) Ambulance  
(7) Fire truck or car  
(8) Other (specify):  
(9) Unknown

## OFFICIAL RECORDS

10. Police Reported Vehicle Disposition

- (0) Not towed due to vehicle damage  
(1) Towed due to vehicle damage  
(9) Unknown

11. Police Reported Travel Speed

Code to the nearest kmph (NOTE: 000 means  
less than 0.5 kmph)  
(160) 159.5 kmph and above  
(999) Unknown

\_\_\_\_ mph X 1.6093 = \_\_\_\_ kmph

12. Speed Limit

(000) No statutory limit  
Code posted or statutory speed limit in kmph  
(999) Unknown

55 mph X 1.6093 = 89 kmph

13. Police Reported Alcohol Presence For Driver

- (0) No alcohol present  
(1) Yes alcohol present  
(7) Not reported  
(8) No driver present  
(9) Unknown

14. Alcohol Test Result For Driver

Code actual value (decimal implied  
before first digit—0.xx)  
(95) Test refused  
(96) None given  
(97) AC test performed, results unknown  
(98) No driver present  
(99) Unknown

Source: \_\_\_\_\_

15. Police Reported Other Drug Presence For Driver

- (0) No other drug(s) present  
(1) Yes other drug(s) present  
(7) Not reported  
(8) No driver present  
(9) Unknown

16. Other Drug Specimen Test Result For Driver

- (0) No specimen test given  
(1) Drug(s) not found in specimen  
(2) Drug(s) found in specimen, (specify):  
(3) Specimen test given, results unknown or not  
obtained  
(8) No driver present  
(9) Unknown if specimen test given

17. Driver's Zip Code

(00001) Driver not a resident of U.S. or territories  
Code actual 5-digit zip code  
(99998) No driver present  
(99999) Unknown

18. Driver's Race/Ethnic Origin

- (1) White (non-Hispanic)  
(2) Black (non-Hispanic)  
(3) White (Hispanic)  
(4) Black (Hispanic)  
(5) American Indian, Eskimo or Aleut  
(6) Asian or Pacific Islander  
(7) Other (specify):  
(8) No driver present  
(9) Unknown



# CODES FOR BODY TYPE

## CDS APPLICABLE VEHICLES

### Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): \_\_\_\_\_

- (09) Unknown automobile type

### Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

### Utility Vehicles ( $\leq 4,536$ kgs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Passport, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Hummer, Landcruiser, Rover, Scout, Yukon)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

### Van Based Light Trucks ( $\leq 4,536$ kgs GVWR)

- (20) Minivan (Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Vista, Aerostar, Windstar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Expo Wagon, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ( $\leq 4,536$  kgs GVWR)
- (23) Van based motorhome ( $\leq 4,536$  kgs GVWR)
- (24) Van based school bus ( $\leq 4,536$  kgs GVWR)
- (25) Van based other bus ( $\leq 4,536$  kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): \_\_\_\_\_
- (29) Unknown van type

### Light Conventional Trucks (Pickup style cab, $\leq 4,536$ kgs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500, T100)
- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

### Other Light Trucks ( $\leq 4,536$ kgs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

## OTHER VEHICLES

### Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): \_\_\_\_\_
- (59) Unknown bus type

### Medium/Heavy Trucks ( $> 4,536$ kgs GVWR)

- (60) Step van ( $> 4,536$  kgs GVWR)
- (61) Single unit straight truck ( $4,536$  kgs  $<$  GVWR  $\leq 8,845$  kgs)
- (62) Single unit straight truck ( $8,845$  kgs  $<$  GVWR  $\leq 11,793$  kgs)
- (63) Single unit straight truck ( $> 11,793$  kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

### Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): \_\_\_\_\_
- (89) Unknown motored cycle type

### Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

## PRECRASH ENVIRONMENTAL DATA

19. Relation To Interchange Or Junction  $\phi$ 

- (0) Non-interchange area and non-junction
- (1) Interchange area related

*Non-Interchange junctions*

- (2) Intersection related
- (3) Driveway, alley access related
- (4) Other junction (specify) \_\_\_\_\_

- (5) Unknown type of junction

- (9) Unknown

20. Trafficway Flow  $\phi$ 

- (0) Not physically divided (two way traffic)
- (1) Divided trafficway-median strip without positive barrier
- (2) Divided trafficway-median strip with positive barrier
- (3) One way traffic
- (9) Unknown

21. Number Of Travel Lanes 2

- (1) One
- (2) Two
- (3) Three
- (4) Four
- (5) Five
- (6) Six
- (7) Seven or more
- (9) Unknown

22. Roadway Alignment 2

- (1) Straight
- (2) Curve right
- (3) Curve left
- (9) Unknown

23. Roadway Profile 1

- (1) Level
- (2) Uphill grade (> 2%)
- (3) Hill crest
- (4) Downhill grade (> 2%)
- (5) Sag
- (9) Unknown

24. Roadway Surface Type 2

- (1) Concrete
- (2) Bituminous (asphalt)
- (3) Brick or block
- (4) Slag, gravel, or stone
- (5) Dirt
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

25. Roadway Surface Condition 2

- (1) Dry
- (2) Wet
- (3) Snow or slush
- (4) Ice
- (5) Sand, dirt, or oil
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

26. Light Conditions 1

- (1) Daylight
- (2) Dark
- (3) Dark, but lighted
- (4) Dawn
- (5) Dusk
- (9) Unknown

27. Atmospheric Conditions 1

- (0) No adverse atmospheric-related driving conditions
- (1) Rain
- (2) Sleet/hail
- (3) Snow
- (4) Fog
- (5) Rain and fog
- (6) Sleet and fog
- (7) Other (e.g., smog, smoke, blowing sand or dust, etc.) (specify): \_\_\_\_\_
- (9) Unknown

28. Traffic Control Device  $\phi$ 

- (0) No traffic control(s)
- (1) Traffic control signal (not RR crossing)

*Regulatory*

- (2) Stop sign
- (3) Yield sign
- (4) School zone sign
- (5) Other regulatory sign (specify): \_\_\_\_\_

- (6) Warning sign (not RR crossing)

- (7) Unknown sign
- (8) Miscellaneous/other controls including RR controls (specify): \_\_\_\_\_

- (9) Unknown

29. Traffic Control Device Functioning  $\phi$ 

- (0) No traffic control device
- (1) Traffic control device not functioning (specify): \_\_\_\_\_
- (2) Traffic control device functioning properly
- (9) Unknown



**PRECRASH DRIVER RELATED DATA**

30. Driver's Distraction/Inattention To Driving 41  
 (Prior To Recognition Of Critical Event)  
 (00) No driver present  
 (01) Attentive or not distracted  
 (02) Looked but did not see  
*Distractions*  
 (03) By other occupant(s), (specify): \_\_\_\_\_  
 (04) By moving object in vehicle (specify): \_\_\_\_\_  
 (05) While talking or listening to cellular phone (specify location and type of phone): \_\_\_\_\_  
 (06) While dialing cellular phone (specify location and type of phone): \_\_\_\_\_  
 (07) While adjusting climate controls  
 (08) While adjusting radio, cassette, CD (specify): \_\_\_\_\_  
 (09) While using other device/controls integral to vehicle (specify): \_\_\_\_\_  
 (10) While using or reaching for device/object brought into vehicle (specify): \_\_\_\_\_  
 (11) Sleepy or fell asleep  
 (12) Distracted by outside person, object, or event (specify): \_\_\_\_\_  
 (13) Eating or drinking  
 (14) Smoking related  
 (97) Distracted/inattentive, details unknown  
 (98) Other, distraction (specify): \_\_\_\_\_  
 (99) Unknown
31. Pre-Event Movement (Prior to Recognition of Critical Event) 14  
 (00) No driver present  
 (01) Going straight  
 (02) Decelerating in traffic lane  
 (03) Accelerating in traffic lane  
 (04) Starting in traffic lane  
 (05) Stopped in traffic lane  
 (06) Passing or overtaking another vehicle  
 (07) Disabled or parked in travel lane  
 (08) Leaving a parking position  
 (09) Entering a parking position  
 (10) Turning right  
 (11) Turning left  
 (12) Making a U-turn  
 (13) Backing up (other than for parking position)  
 (14) Negotiating a curve  
 (15) Changing lanes  
 (16) Merging  
 (17) Successful avoidance maneuver to a previous critical event  
 (97) Other (specify): \_\_\_\_\_  
 (99) Unknown
32. Critical Precrash Event 62  
**THIS VEHICLE LOSS OF CONTROL DUE TO:**  
 (01) Blow out or flat tire  
 (02) Stalled engine  
 (03) Disabling vehicle failure (e.g., wheel fell off) (specify): \_\_\_\_\_  
 (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): \_\_\_\_\_  
 (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): \_\_\_\_\_  
 (06) Traveling too fast for conditions  
 (08) Other cause of control loss (specify): \_\_\_\_\_  
 (09) Unknown cause of control loss

**THIS VEHICLE TRAVELLING**

- (10) Over the lane line on left side of travel lane  
 (11) Over the lane line on right side of travel lane  
 (12) Off the edge of the road on the left side  
 (13) Off the edge of the road on the right side  
 (14) End departure  
 (15) Turning left at intersection  
 (16) Turning right at intersection  
 (17) Crossing over (passing through) intersection  
 (18) This vehicle decelerating  
 (19) Unknown travel direction

**OTHER MOTOR VEHICLE IN LANE**

- (50) Other vehicle stopped  
 (51) Traveling in same direction with lower steady speed  
 (52) Traveling in same direction while decelerating  
 (53) Traveling in same direction with higher speed  
 (54) Traveling in opposite direction  
 (55) In crossover  
 (56) Backing  
 (59) Unknown travel direction of other motor vehicle in lane

**OTHER MOTOR VEHICLE ENCROACHING INTO LANE**

- (60) From adjacent lane (same direction)—over left lane line  
 (61) From adjacent lane (same direction)—over right lane line  
 (62) From opposite direction—over left lane line  
 (63) From opposite direction—over right lane line  
 (64) From parking lane  
 (65) From crossing street, turning into same direction  
 (66) From crossing street, across path  
 (67) From crossing street, turning into opposite direction  
 (68) From crossing street, intended path not known  
 (70) From driveway, turning into same direction  
 (71) From driveway, across path  
 (72) From driveway, turning into opposite direction  
 (73) From driveway, intended path not known  
 (74) From entrance to limited access highway  
 (78) Encroachment by other vehicle—details unknown

**PEDESTRIAN, PEDALCYCLIST, OR OTHER NONMOTORIST**

- (80) Pedestrian in roadway  
 (81) Pedestrian approaching roadway  
 (82) Pedestrian—unknown location  
 (83) Pedalcyclist or other nonmotorist in roadway

(specify): \_\_\_\_\_

- (84) Pedalcyclist or other nonmotorist approaching roadway, (specify): \_\_\_\_\_

- (85) Pedalcyclist or other nonmotorist—unknown location

(specify): \_\_\_\_\_

**OBJECT OR ANIMAL**

- (87) Animal in roadway  
 (88) Animal approaching roadway  
 (89) Animal—unknown location  
 (90) Object in roadway  
 (91) Object approaching roadway  
 (92) Object—unknown location  
 (98) Other critical precrash event (specify): \_\_\_\_\_

- (99) Unknown

## 33. Attempted Avoidance Maneuver

01

- (00) No driver present
- (01) No avoidance maneuver
- (02) Braking (no lockup)
- (03) Braking (lockup)
- (04) Braking (lockup unknown)
- (05) Releasing brakes
- (06) Steering left
- (07) Steering right
- (08) Braking and steering left
- (09) Braking and steering right
- (10) Accelerating
- (11) Accelerating and steering left
- (12) Accelerating and steering right
- (98) Other action (specify): \_\_\_\_\_

(99) Unknown

## 34. Pre-Impact Stability

1

- (0) No driver present
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify): \_\_\_\_\_

(9) Precrash stability unknown

## 35. Pre-Impact Location

1

- (0) No driver present
- (1) Stayed in original travel lane
- (2) Stayed on roadway but left original travel lane
- (3) Stayed on roadway, not known if left original travel lane
- (4) Departed roadway
- (5) Remained off roadway
- (6) Returned to roadway
- (7) Entered roadway
- (9) Unknown

## 36. Accident Type

65

(Note: Applicable codes on back of this page)

(00) No impact

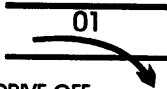
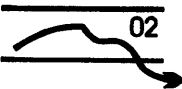
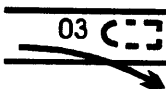


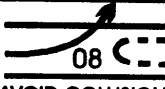


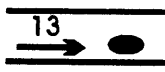
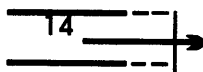
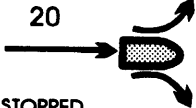
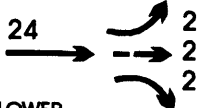
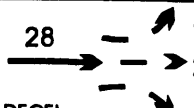
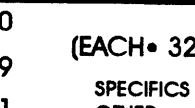




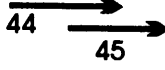

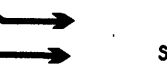
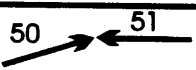




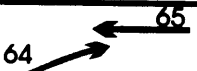
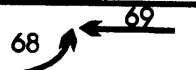

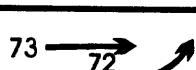
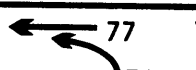
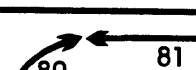
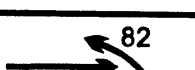
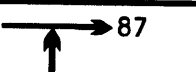


Code the number of the diagram that best describes the accident circumstance

(98) Other accident type (specify): \_\_\_\_\_

(99) Unknown

**STOP HERE IF GV07 DOES NOT EQUAL 01 - 49**



Category	Configuration	ACCIDENT TYPES (Includes Intent)						
I Single driver	A. Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH. PED. ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN		
	B. Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH. PED. ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN		
	C. Forward Impact	 11 PARKED VEHICLE	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER	16 SPECIFICS UNKNOWN	
II Same Trafficway Same Direction	D. Rear-End	 20 STOPPED 21,22,23			 24 SLOWER 25,26,27	 28 DECEL 29,30,31	 30 29 31 (EACH • 32) SPECIFICS OTHER	(EACH • 33) SPECIFICS UNKNOWN
	E. Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEHICLE	 40 AVOID COLLISION WITH OBJECT	(EACH • 42) SPECIFICS OTHER	(EACH • 43) SPECIFICS UNKNOWN	
	F. Sideswipe/Angle	 44 45	 46 45 47	 (EACH • 48) SPECIFICS OTHER		(EACH • 49) SPECIFICS UNKNOWN		
III Same Trafficway Opposite Direction	G. Head-On	 50 LATERAL MOVE		(EACH • 52) SPECIFICS OTHER		(EACH • 53) SPECIFICS UNKNOWN		
	H. Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEHICLE	 60 AVOID COLLISION WITH OBJECT	(EACH • 62) SPECIFICS OTHER	(EACH • 63) SPECIFICS UNKNOWN	
	I. Sideswipe/Angle	 64 LATERAL MOVE		(EACH • 66) SPECIFICS OTHER		(EACH • 67) SPECIFICS UNKNOWN		
IV Change Trafficway Vehicle Turning	J. Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS		 71 INITIAL SAME DIRECTION		 73 72 (EACH • 74) SPECIFICS OTHER	(EACH • 75) SPECIFICS UNKNOWN	
	K. Turn Into Path	 77 76 TURN INTO SAME DIRECTION		 80 81 TURN INTO OPPOSITE DIRECTION		 82 83 (EACH • 84) SPECIFICS OTHER	(EACH • 85) SPECIFICS UNKNOWN	
V Intersecting Paths (Vehicle Damage)	L. Straight Paths	 86 87		 88 89		(EACH • 90) SPECIFICS OTHER	(EACH • 91) SPECIFICS UNKNOWN	
VI. Miscellaneous	M. Backing Etc.	 92 BACKING VEHICLE		93 OTHER VEHICLE OR OBJECT		98 Other Accident Type 99 Unknown Accident Type 00 No impact		

**OCCUPANT RELATED**

37. Driver Presence in Vehicle 1  
 (0) Driver not present  
 (1) Driver present  
 (9) Unknown
38. Number of Occupants This Vehicle 2  
 (00-96) Code actual number of occupants for this vehicle  
 (97) 97 or more  
 (99) Unknown
39. Number of Occupant Forms Submitted 2

**AIR BAG RELATED**

40. Is this an AOPS Vehicle? 1  
 (0) No (includes unknown)  
 (1) Yes - researcher determined  
 (2) VIN determined air bag system  
 (3) VIN determined automatic (passive) belts  
 (4) VIN determined air bag and automatic (passive) belts
41. Air Bag(s) Deployment, First Seat Frontal 6  
 (0) Not equipped or not available  
 (1) No air bags deployed  
*Single Air Bag Vehicle*  
 (2) Driver air bag deployed  
 (3) Driver air bag, unknown if deployed  
*Multiple Air Bag Vehicle*  
 (4) Driver side only deployed  
 (5) Passenger side only deployed  
 (6) Driver and passenger side deployed  
 (7) Driver and passenger side unknown if deployed  
 (8) Air bag(s) deployed, details unknown  
 (9) Unknown
42. Air Bag(s) Deployment, Other Than First Seat Frontal 4  
 (0) Not equipped with an "other" air bag  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown
- Specify type of "other" air bag present: \_\_\_\_\_

**VEHICLE WEIGHT ITEMS**

43. Vehicle Curb Weight 1,430  
 \_\_\_\_\_ Code weight to nearest 10 kilograms.  
 (045) Less than 454 kilograms  
 (612) 6,124 kilograms or more  
 (999) Unknown  
3,148 lbs X .4536 = 1,428 kgs  
 Source: \_\_\_\_\_

44. Vehicle Cargo Weight 0  
 \_\_\_\_\_ Code weight to nearest 10 kilograms.  
 (000) Less than 5 kilograms  
 (454) 4,536 kilograms or more  
 (999) Unknown  
 \_\_\_\_\_ lbs X .4536 = \_\_\_\_\_ kgs  
 Source: INSPECTION

**ROLLOVER DATA**

45. Rollover 0  
 (00) No rollover (no overturning)  
*Rollover (primarily about the longitudinal axis)*  
 (01-16) Code the number of quarter turns  
 (17) Rollover, 17 or more quarter turns (specify): \_\_\_\_\_  
 (98) Rollover--end-over-end (i.e., primarily about the lateral axis)  
 (99) Rollover (overturn), details unknown
46. Rollover Initiation Type 0  
 (00) No rollover  
 (01) Trip-over  
 (02) Flip-over  
 (03) Turn-over  
 (04) Climb-over  
 (05) Fall-over  
 (06) Bounce-over  
 (07) Collision with another vehicle  
 (08) Other rollover initiation type specify): \_\_\_\_\_  
 (98) Rollover--end-over-end  
 (99) Unknown rollover initiation type
47. Location of Rollover Initiation 0  
 (0) No rollover  
 (1) On roadway  
 (2) On shoulder--paved  
 (3) On shoulder--unpaved  
 (4) On roadside or divided trafficway median  
 (8) Rollover--end-over-end  
 (9) Unknown
48. Rollover Initiation Object Contacted 0  
 (Note: Applicable codes on back of page)
49. Location on Vehicle Where Initial Principal Tripping Force Is Applied 0  
 (0) No rollover  
 (1) Wheels/tires  
 (2) Side plane  
 (3) End plane  
 (4) Undercarriage  
 (5) Other location on vehicle (specify): \_\_\_\_\_  
 (6) Non-contact rollover forces (specify): \_\_\_\_\_  
 (8) Rollover--end-over-end  
 (9) Unknown
50. Direction of Initial Roll 0  
 (0) No rollover  
 (1) Roll right - primarily about the longitudinal axis  
 (2) Roll left - primarily about the longitudinal axis  
 (8) Rollover--end-over-end  
 (9) Unknown roll direction



## CODES FOR ROLLOVER INITIATION OBJECT CONTACTED

- (00) No rollover
- (01-30) — Vehicle Number

### Noncollision

- (31) Turn-over — fall-over
- (32) No rollover impact initiation (end-over-end)
- (34) Jackknife

### Collision With Fixed Object

- (41) Tree ( $\leq 10$  cm in diameter)
- (42) Tree ( $> 10$  cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment

- (45) Breakaway pole or post (any diameter)

### Nonbreakaway Pole or Post

- (50) Pole or post ( $\leq 10$  cm in diameter)
- (51) Pole or post ( $> 10$  cm but  $\leq 30$  cm in diameter)
- (52) Pole or post ( $> 30$  cm in diameter)
- (53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail)  
(specify): \_\_\_\_\_

- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): \_\_\_\_\_

- (69) Unknown fixed object \_\_\_\_\_

### Collision with Nonfixed Object

- (70) Passenger car, light truck, van, or other vehicle not in-transport
- (71) Medium/heavy truck or bus not in-transport
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (79) Object fell from vehicle in-transport
- (88) Other nonfixed object (specify): \_\_\_\_\_

- (89) Unknown nonfixed object \_\_\_\_\_

- (98) Other event (specify): \_\_\_\_\_

- (99) Unknown event or object \_\_\_\_\_

## OVERRIDE/UNDERRIDE (THIS VEHICLE)

51. Front Override/Underride (this Vehicle) 052. Rear Override/Underride (this Vehicle) 0

- (0) No override/underride, or not an end-to-end impact between two CDS applicable vehicles, and no medium/heavy truck or bus underride

*Override (see specific CDC)**[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]*

- (1) 1st CDC  
(2) 2nd CDC  
(3) Other not automated CDC (specify):  
\_\_\_\_\_

*Underride (see specific CDC)**[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]*

- (4) 1st CDC  
(5) 2nd CDC  
(6) Other not automated CDC (specify):  
\_\_\_\_\_

- (7) Medium/heavy truck or bus override (of any configuration)  
(9) Unknown

## HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value

- (996) Non-horizontal impact  
(997) Noncollision  
(998) Impact with object  
(999) Unknown

53. Heading Angle For This Vehicle 09054. Heading Angle For Other Vehicle 210

## RECONSTRUCTION DATA

55. Towed Trailing Unit 0

- (0) No towed unit  
(1) Yes—towed trailing unit  
(9) Unknown

56. Documentation of Trajectory Data for This Vehicle 0

- (0) No  
(1) Yes

57. Post Collision Condition of Tree or Pole (For Highest Delta V) 0

- (0) Not collision (for highest delta V) with tree or pole  
(1) Not damaged  
(2) Cracked/sheared  
(3) Tilted < 45 degrees  
(4) Tilted ≥ 45 degrees  
(5) Uprooted tree  
(6) Separated pole from base  
(7) Pole replaced  
(8) Other (specify):  
\_\_\_\_\_

(9) Unknown

## ACCIDENT RECONSTRUCTION PROGRAMS HIGHEST DELTA V

58. Basis for Total (Resultant) Delta V (highest) 03

- (00) No vehicle inspection

*Delta V Calculated*

- (01) Reconstruction program-damage only routine  
(02) Reconstruction program-damage and trajectory routine  
(03) Missing vehicle algorithm

*Delta V Not Calculated*

- (04) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

*All vehicles within scope (CDC applicable) of reconstruction program but one of the collision conditions is beyond the scope of the reconstruction program or other acceptable reconstruction technique, regardless of adequacy of damage data.*

- (05) Rollover  
(06) Other non-horizontal forces  
(07) Sideswipe type damage  
(08) Severe override  
(09) Yielding object  
(10) Overlapping damage  
(11) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available, (specify):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(98) Other, (specify): \_\_\_\_\_  
\_\_\_\_\_



## COMPUTER GENERATED CRASH SEVERITY

59. Total Delta V

Highest

03939.0 Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)  
 (160) 159.5 kmph and above  
 (999) Unknown

60. Longitudinal Component of Delta V

Highest

+037-36.6 Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: \_\_000 means greater than  
 -0.5 kmph and less than +0.5 kmph)  
 (±160) ±159.5 kmph and above  
 (\_999) Unknown

61. Lateral Component of Delta V

Highest

+01313.3 Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: \_\_000 means greater than -0.5 kmph and  
 less than +0.5 kmph)  
 (±160) ±159.5 kmph and above  
 (\_999) Unknown

62. Energy Absorption

Highest

03090052.149 Nearest 100 joules (highest)

\_\_\_\_ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)  
 (9997) 999,650 joules or more  
 (9999) Unknown

63. Impact Speed

Highest

998

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means  
 less than 0.5 kmph)  
 (160) 159.5 kmph and above  
 (998) Trajectory algorithm not run  
 (999) Unknown

## DELTA V CONFIDENCE LEVEL

64. Confidence In Reconstruction Program Results (For Highest Delta V)

- (0) No reconstruction  
 (1) Collision fits model — results appear reasonable  
 (2) Collision fits model — results appear high  
 (3) Collision fits model — results appear low  
 (4) Borderline reconstruction — results appear reasonable

1

## OTHER SPEED ESTIMATE

65. Barrier Equivalent Speed

Highest

02227.2 Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means  
 less than 0.5 kmph)  
 (160) 159.5 kmph and above  
 (999) Unknown

ESTIMATED DELTA V	INSPECTION TYPE
<p>66. Estimated Highest Delta V (Researcher Determined) <span style="float: right;"><u>φ</u></span></p> <p>(0) Reconstruction Delta V coded</p> <p><i>Estimated Delta V</i></p> <p>(1) Less than 10 kmph</p> <p>(2) ≥ 10 kmph but &lt; 25 kmph</p> <p>(3) ≥ 25 kmph but &lt; 40 kmph</p> <p>(4) ≥ 40 kmph but &lt; 55 kmph</p> <p>(5) ≥ 55 kmph</p> <p><i>Other estimates of damage severity</i></p> <p>(6) Minor</p> <p>(7) Moderate</p> <p>(8) Severe</p> <p>(9) Unknown</p>	<p>67. Type of Vehicle Inspection <span style="float: right;"><u>3</u></span></p> <p>(0) No inspection</p> <p>(1) Vehicle fully repaired-no damage evident</p> <p>(2) Partial inspection (specify): _____</p> <p>(3) Complete inspection</p> <hr/> <p style="text-align: center;"><b>DELTA V EVENT NUMBER</b></p> <p>68. Delta V Event Number <span style="float: right;"><u>1</u></span></p> <p>_____ Code the accident event sequence number that resulted in the Delta V that has been coded above for this vehicle</p> <p>(99) Unknown</p>

\*\*\* IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV67 = 0), \*\*\*

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

\*\*\* IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE \*\*\*

THE EXTERIOR VEHICLE, INTERIOR VEHICLE,  
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.





# EXTERIOR VEHICLE FORM

1. Primary Sampling Unit Number _____	3. Vehicle Number <u>φ 1</u>
2. Case Number - Stratum <u>DS9614</u>	

## VEHICLE IDENTIFICATION

VIN 1 MELM5345N6XXX Model Year 92

Vehicle Make (specify): MERCURY Vehicle Model (specify): SABLE (LS)

## LOCATOR

Locate the end of the damage with respect to the vehicle's damaged center point or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Max Crush
φ1	BEGINS @ LF-CORNER	ACROSS FRONT END	C <sub>2</sub> (ABOVE FRAME LEVEL)
φ2	BEGINS @ 27cm REARWARD OF REAR AXLE	SAME	Zone 2

## CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

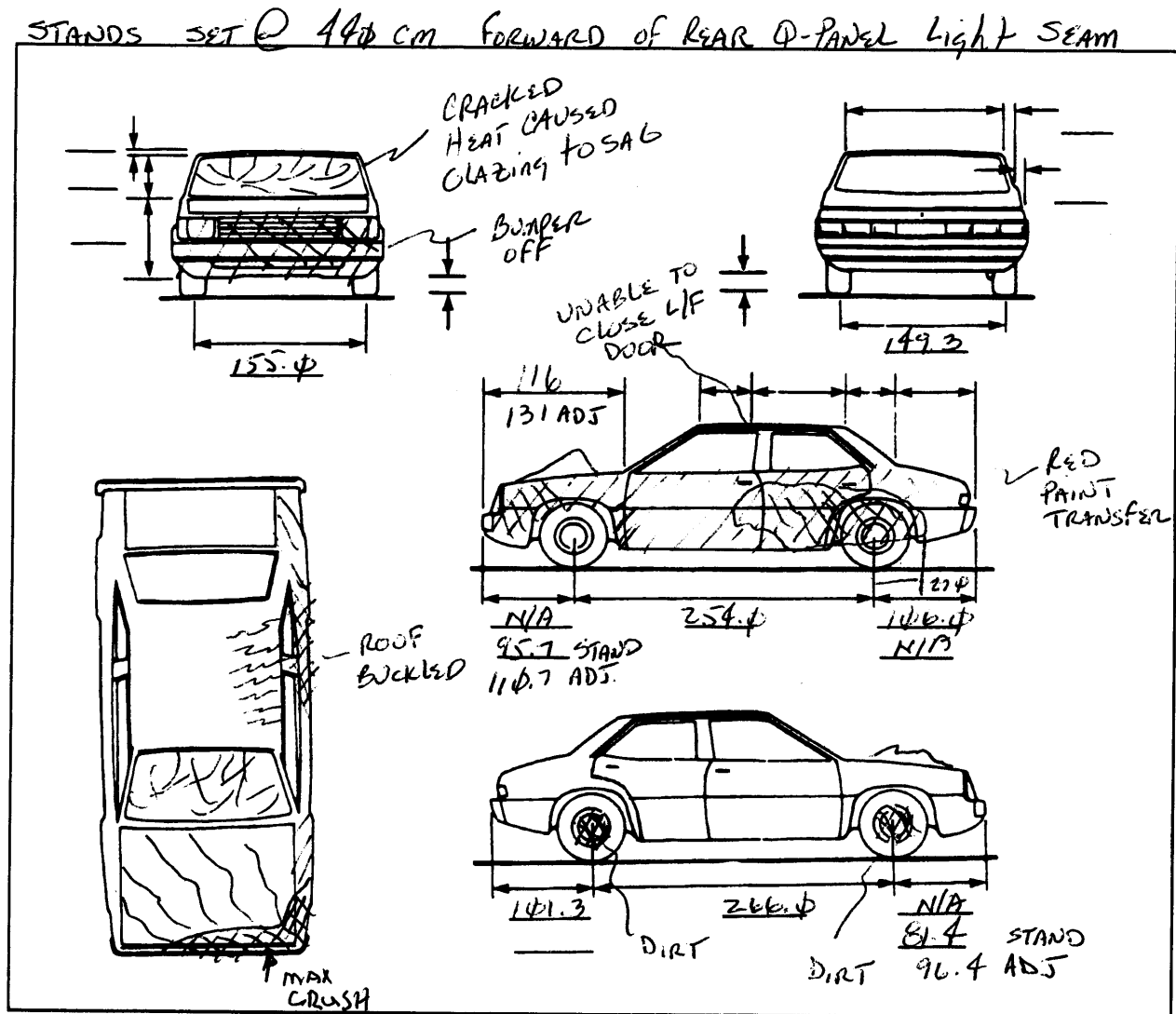
Use as many lines/columns as necessary to describe each damage profile.

Specific Impact Number	Plane of Impact C-Measurements	Direct Damage		Field L	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub>	C <sub>6</sub>	±D
		Width (CDC)	Max Crush								
φ1	BUMPER MOUNTING BRACKETS	117	41.5	117	41.5	13.7					
	FREE SPACE		31.5		31.5	31.5					
	STAND ADJ.		+15.φ		+15.φ	+15.φ					
	CRUSH		25.φ		25.φ	φ					-14.φ
φ2	SILL	119.φ	Zone 2	15φ							-1φ2.1
φ1	RADIATOR RAIL	115		132	49.1	45.5	39.7	36.4	28.4	15.6	
	FREE SPACE				4φ.5	34.4	29.5	29.5	34.4	4φ.5	
	STAND ADJ.				+15	+15	+15	+15	+15	+15	
	CRUSH				23.6	26.1	25.2	21.9	9	φ	

## VEHICLE DAMAGE SKETCH

<b>TIRE—WHEEL DAMAGE</b> a. Rotation physically restricted    b. Tire deflated RF <u>2</u> RF <u>1</u> LF <u>1</u> LF <u>2</u> RR <u>2</u> RR <u>2</u> LR <u>1</u> LR <u>2</u> (1) Yes (2) No (8) NA (9) Unk.	<b>ORIGINAL SPECIFICATIONS</b> Wheelbase <u>269.2</u> cm Overall Length <u>488.2</u> cm Maximum Width <u>180.8</u> cm Curb Weight <u>1428</u> kg Average Track <u>152 (FIELD)</u> cm Front Overhang <u>102.0</u> cm Rear Overhang <u>115</u> cm Undeformed End Width <u>145.0</u> cm Engine Size: cyl./displ. <u>16 / 3.8</u> L	<b>WHEEL STEER ANGLES</b> (For locked front wheels or displaced rear axles only) RF $\pm$ <u>    </u> ° LF $\pm$ <u>1</u> $\phi$ ° RR $\pm$ <u>    </u> ° LR $\pm$ <u>    </u> $\phi$ ° Within $\pm$ 5 degrees  <b>DRIVE WHEELS</b> <input checked="" type="checkbox"/> FWD <input type="checkbox"/> RWD <input type="checkbox"/> 4WD  Approximate Cargo Weight <u>    </u> $\phi$ kg
<b>TYPE OF TRANSMISSION</b> <input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic  <b>END SHIFT <math>\geq</math> 10 CM</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

## MEASUREMENTS IN CENTIMETERS



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.



## CODES FOR OBJECT CONTACTED

(57) Fence

(58) Wall

- (58) Wall  
(59) Building  
(60) Ditch or culvert  
(61) Ground  
(62) Fire hydrant  
(63) Curb  
(64) Bridge  
(68) Other fixed object (specify):

- (69) Unknown fixed object

- ### Collision with Nonfixed Object

(70) Passenger car, light truck, van, or other vehicle not in-transport

- (71) Medium/heavy truck or bus not in-transport  
(72) Pedestrian  
(73) Cyclist or cycle  
(74) Other nonmotorist or conveyance

- (75) Vehicle occupant

(76) Animal

- (77) Train  
(78) Trailer, disconnected in transport  
(79) Object fell from vehicle in-transport  
(88) Other nonfixed object (specify):

- (89) Unknown nonfixed object

- (98) Other event (specify):

- (99) Unknown event or object

[illegible]

## COLLISION DEFORMATION CLASSIFICATION

## HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>Φ 1</u>	5. <u>Φ 2</u>	6. <u>1 1</u>	7. <u>F</u>	8. <u>D</u>	9. <u>E</u>	10. <u>W</u>	11. <u>Φ 2</u>

## Second Highest Delta "V"

12. <u>Φ 2</u>	13. <u>Φ 2</u>	14. <u>Φ 9</u>	15. <u>L</u>	16. <u>Z</u>	17. <u>E</u>	18. <u>W</u>	19. <u>Φ 2</u>
----------------	----------------	----------------	--------------	--------------	--------------	--------------	----------------

## CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

## HIGHEST DELTA "V"

20. <u>L</u>	21. <u>C<sub>1</sub></u>	<u>C<sub>2</sub></u>	<u>C<sub>3</sub></u>	<u>C<sub>4</sub></u>	<u>C<sub>5</sub></u>	<u>C<sub>6</sub></u>	22. <u>± D</u>
--------------	--------------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------

145 Φ 24 Φ 24 Φ 25 Φ 22 Φ Φ 9 Φ Φ Φ ⊕ Φ 14

## Second Highest Delta "V"

23. <u>L</u>	24. <u>C<sub>1</sub></u>	<u>C<sub>2</sub></u>	<u>C<sub>3</sub></u>	<u>C<sub>4</sub></u>	<u>C<sub>5</sub></u>	<u>C<sub>6</sub></u>	25. <u>± D</u>
--------------	--------------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------

\_\_\_\_\_ + \_\_\_\_\_  
= \_\_\_\_\_

26. Undeformed End Width  
(Coded when highest severity impact is an end plane impact.)  
145  
\_\_\_\_\_ Code to the nearest centimeter  
(250) 250 centimeters or more  
(998) No highest severity end plane impact  
(999) Unknown

27. Direct Damage Width  
(For highest severity impact)  
117  
\_\_\_\_\_ Code to the nearest centimeter  
(250) 250 centimeters or more  
(999) Unknown

28. Original Wheelbase  
\_\_\_\_\_ Code to the nearest centimeter  
(650) 650 centimeters or more  
(999) Unknown  
\_\_\_\_\_ inches X 2.54 = \_\_\_\_\_ centimeters

29. Original Average Track Width  
\_\_\_\_\_ Code to the nearest centimeter  
(185) 185 centimeters or more  
(999) Unknown  
\_\_\_\_\_ inches X 2.54 = \_\_\_\_\_ centimeters

(FIELD)



**FUEL SYSTEM**

30. Are CDCs Documented  
but Not Coded on The  
Automated File?

- (0) No  
(1) Yes

1

31. Researcher's Assessment of Vehicle  
Disposition

- (0) Not towed due to vehicle damage  
(1) Towed due to vehicle damage  
(9) Unknown

1

32. Is This A Multi-Stage Manufactured Vehicle  
And/Or A Certified Altered Vehicle?

- (0) No post manufacturer modifications  
(1) Yes - post manufacturer modifications  
(specify): \_\_\_\_\_

1

(Include photograph of CERTIFICATION  
PLACARD in case report)

- (9) Unknown if vehicle is modified

**FIRE OCCURRENCE**

33. Fire Occurrence

- (0) No fire

Yes, fire occurred

- (1) Minor  
(2) Major  
(9) Unknown

1

34. Origin of Fire

- (0) No fire  
(1) Vehicle exterior (front, side, back, top)  
(2) Exhaust system  
(3) Fuel tank (and other fuel retention  
system parts)  
(4) Engine compartment  
(5) Cargo/trunk compartment  
(6) Instrument panel  
(7) Passenger compartment area  
(8) Other location (specify): \_\_\_\_\_

1

- (9) Unknown

35. Location of Fuel Tank-1 Filler Cap

3

36. Location of Fuel Tank-2 Filler Cap

1

- (0) No fuel tank  
(1) On back plane  
(2) Aft of center of the rear wheels (rear axle) on  
left side plane  
(3) Aft of center of the rear wheels (rear axle) on  
right side plane  
(4) Forward of center of the rear wheels (rear  
axle) on left side plane  
(5) Forward of center of the rear wheels (rear  
axle) on right side plane  
(6) Over the center of the rear wheels (rear axle)  
on left side plane  
(7) Over the center of the rear wheels (rear axle)  
on right side plane  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

37. Type of Fuel Tank-1

1

38. Type of Fuel Tank-2

1

- (0) No fuel tank (electrical vehicle)  
(1) Metallic  
(2) Non-metallic  
(9) Unknown

39. Location of Fuel Tank-1

4

40. Location of Fuel Tank-2

1

- (0) No fuel tank  
(1) Aft of center of the rear wheels (rear axle)  
centered  
(2) Aft of center of the rear wheels (rear axle) left  
side  
(3) Aft of center of the rear wheels (rear axle)  
right side  
(4) Forward of center of the rear wheels (rear  
axle) centered  
(5) Forward of center of the rear wheels (rear  
axle) left side  
(6) Forward of center of the rear wheels (rear  
axle) right side  
(7) Over center of the rear wheels (rear axle)  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

41. Damage to Fuel Tank-1

1

42. Damage to Fuel Tank-2

1

- (0) No fuel tank  
(1) No damage to fuel tank  
(2) Deformed, no seam failure  
(3) Deformed, with a seam failure  
(4) Punctured  
(5) Lacerated (ripped)  
(6) Abraded (scraped)  
(7) Filler neck separation from the fuel tank  
(8) Other damage (specify): \_\_\_\_\_  
(9) Unknown

[illegible]





# INTERIOR VEHICLE FORM

BEST AVAILABLE

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum

DS9610

3. Vehicle Number

01

## INTEGRITY

4. Passenger Compartment Integrity

(00) No integrity loss

0 0

Yes, Integrity Was Lost Through

(01) Windshield

(02) Door (side)

(03) Door/hatch (back door)

(04) Roof

(05) Roof glass

(06) Side window

(07) Rear window (backlight)

(08) Roof and roof glass

(09) Windshield and door (side)

(10) Windshield and roof

(11) Side and rear window (side window and backlight)

(12) Windshield and side window

(13) Door and side window

(98) Other combination of above (specify):

(99) Unknown

Door, Tailgate or Hatch Opening

5. LF 1 6. RF 1 7. LR 1 8. RR 1 9. TG/H 0

(0) No door/gate/hatch

(1) Door/gate/hatch remained closed and operational

(2) Door/gate/hatch came open during collision

(3) Door/gate/hatch jammed shut

(8) Other (specify):

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then code 0

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

(1) Door operational (no damage)

(2) Latch/striker failure due to damage

(3) Hinge failure due to damage

(4) Door structure failure due to damage

(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage

(6) Latch/striker and hinge failure due to damage

(8) Other failure (specify):

(9) Unknown

## GLAZING

Type of Window/Windshield Glazing

15. WS 1 16. LF 1 17. RF 1 18. LR 4 19. RR 4

20. BL 4 21. Roof 0 22. Other 4

(0) No glazing

(1) AS-1 — Laminated

(2) AS-2 — Tempered

(3) AS-3 — Tempered-tinted (original)

(4) AS-2 — Tempered-with after market tint

(5) AS-3 — Tempered-tinted (with additional after market tint)

(6) AS-14 — Glass/Plastic

(7) Glazing removed prior to accident

(8) Other (specify):

(9) Unknown

Window Precrash Glazing Status

23. WS 1 24. LF 2 25. RF 2 26. LR 2 27. RR 2

28. BL 1 29. Roof 0 30. Other 1

(0) No glazing

(1) Fixed

(2) Closed

(3) Partially opened

(4) Fully opened

(7) Glazing removed prior to accident

(9) Unknown

Glazing Damage from Impact Forces

31. WS 2 32. LF 1 33. RF 1 34. LR 1 35. RR 1

36. BL 1 37. Roof 0 38. Other 1

(0) No glazing

(1) No glazing damage from impact forces

(2) Glazing in place and cracked from impact forces

(3) Glazing in place and holed from impact forces

(4) Glazing out-of-place (cracked or not) and not holed from impact forces

(5) Glazing out-of-place and holed from impact forces

(6) Glazing disintegrated from impact forces

(7) Glazing removed prior to accident

(9) Unknown if damaged

Glazing Damage from Occupant Contact

39. WS 1 40. LF 1 41. RF 1 42. LR 1 43. RR 1

44. BL 1 45. Roof 0 46. Other 1

(0) No glazing

(1) No occupant contact to glazing

(2) Glazing contacted by occupant but no glazing damage

(3) Glazing in place and cracked by occupant contact

(4) Glazing in place and holed by occupant contact

(5) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact

(6) Glazing out-of-place by occupant contact and holed by occupant contact

(7) Glazing removed prior to accident

(8) Glazing disintegrated by occupant contact

(9) Unknown if contacted by occupant

# INTRUSION WORKSHEET

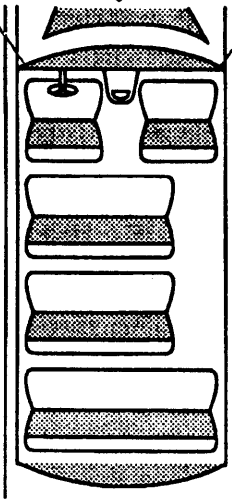
**NOTE: SKETCH INTRUDED AREAS**

IP BY  
APILAN  
MOVED

IP MOVED  
APILAN

Row  
Width  
(cm)

Longitudinal

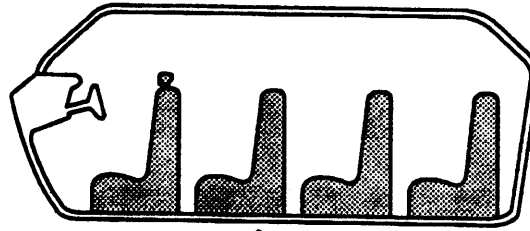


Lateral

Longitudinal

Vertical

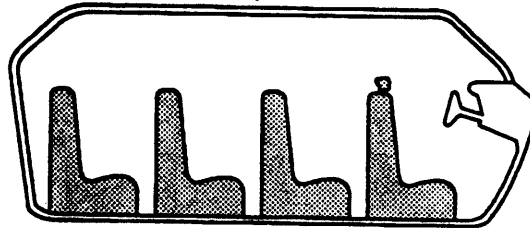
Longitudinal



Longitudinal

Vertical

Longitudinal



Longitudinal

Vertical

LOCATION OF INTRUSION	INTRUDED COMPONENT	(All Measurements Are in Centimeters)			DOMINANT CRUSH DIRECTION
		COMPARISON VALUE	INTRUDED VALUE	INTRUSION	
11	φ5	109.5	6φ.φ	= 9.5	2
11	18	22.φ	25.φ	= 3.φ	1
13	φ4			= 1.5	3
13	φ4			= 2.5	2
11	27			= 1φ	3
				=	
				=	
				=	
				=	
				=	
				=	
				=	
				=	
				=	
				=	
				=	
				=	



## OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

## INTRUDING COMPONENT

## Interior Components

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Side panel - forward of the A1/A2-pillar
- (11) Door panel (side)
- (12) Side panel - rear of the B-pillar
- (13) Roof (or convertible top)
- (14) Roof side rail
- (15) Windshield
- (16) Windshield header
- (17) Window frame
- (18) Floor pan (includes sill)
- (19) Backlight header
- (20) Front seat back
- (21) Second seat back
- (22) Third seat back
- (23) Fourth seat back
- (24) Fifth seat back
- (25) Seat cushion
- (26) Back door/panel (e.g., tailgate)
- (27) Other interior component (specify):

L - WINDOW FRAME PLASTIC COVER

## Exterior Components

- (30) Hood
- (31) Outside surface of this vehicle (specify):
- (32) Other exterior object in the environment (specify):
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify):
- (99) Unknown

## LOCATION OF INTRUSION

## Front Seat

- (11) Left
- (12) Middle
- (13) Right

## Second Seat

- (21) Left
- (22) Middle
- (23) Right

## Third Seat

- (31) Left
- (32) Middle
- (33) Right

## Fourth Seat

- (41) Left
- (42) Middle
- (43) Right

- (97) Catastrophic
- (98) Other enclosed area (specify)

(99) Unknown

## MAGNITUDE OF INTRUSION

- (1)  $\geq 3$  centimeters but  $< 8$  centimeters
- (2)  $\geq 8$  centimeters but  $< 15$  centimeters
- (3)  $\geq 15$  centimeters but  $< 30$  centimeters
- (4)  $\geq 30$  centimeters but  $< 46$  centimeters
- (5)  $\geq 46$  centimeters but  $< 61$  centimeters
- (6)  $\geq 61$  centimeters
- (7) Catastrophic
- (9) Unknown

## DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. <u>11</u>	48. <u>27</u>	49. <u>2</u>	50. <u>3</u>
2nd	51. <u>11</u>	52. <u>45</u>	53. <u>2</u>	54. <u>2</u>
3rd	55. <u>11</u>	56. <u>18</u>	57. <u>1</u>	58. <u>1</u>
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

STEERING RIM/SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE	—	DAMAGE VALUE	=	DEFORMATION
	—		=	
	—		=	
	—		=	
	—		=	



## STEERING COLUMN

## INSTRUMENT PANEL

## 87. Steering Column Type

2

- (1) Fixed column  
 (2) Tilt column  
 (3) Telescoping column  
 (4) Tilt and telescoping column  
 (8) Other column type (specify): \_\_\_\_\_

(9) Unknown

## 88. Tilt Steering Column Adjustment

2

- (0) No tilt steering column  
 (1) Full up  
 (2) Between full up and center  
 (3) Center  
 (4) Between center and full down  
 (5) Full down  
 (9) Unknown

## 89. Telescoping Steering Column Adjustment

φ

- (0) No telescoping steering column  
 (1) Full back  
 (2) Between full back and midpoint  
 (3) Midpoint  
 (4) Between midpoint and full forward  
 (5) Full forward  
 (9) Unknown

## 90. Steering Rim/Spoke Deformation

φ φ

Code actual measured

deformation to the nearest centimeter

- (00) No steering rim deformation  
 (01-14) Actual measured value in centimeters  
 (15) 15 centimeters or more  
 (98) Observed deformation cannot be measured  
 (99) Unknown

## 91. Location of Steering Rim/Spoke Deformation

φ φ

(00) No steering rim deformation

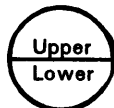
## Quarter Sections

- (01) Section A  
 (02) Section B  
 (03) Section C  
 (04) Section D



## Half Sections

- (05) Upper half of rim/spoke  
 (06) Lower half of rim/spoke  
 (07) Left half of rim/spoke  
 (08) Right half of rim/spoke



- (09) Complete steering wheel collapse  
 (10) Undetermined location  
 (99) Unknown

## 92. Odometer Reading

1 φ 1,000

kilometers

Code to the nearest 1,000 kilometers

- (000) No odometer  
 (001) Less than 1,500 kilometers  
 (500) 499,500 kilometers or more  
 (999) Unknown

62,591 miles X 1.6093 = 1 φ φ 728 kilometersSource: Vehicle Inspection

## 93. Instrument Panel Damage from Occupant Contact?

1

- (0) No  
 (1) Yes  
 (9) Unknown

## 94. Type of Knee Bolster Covering

2

- (0) No knee bolster  
 (1) Padded  
 (2) Rigid plastic  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

## 95. Knee Bolsters Deformed from Occupant Contact?

2

- (0) No knee bolster  
 (1) No deformation  
 (2) Yes - deformation  
 (9) Unknown

## 96. Did Glove Compartment Door Open During Collision(s)?

2

- (0) No glove compartment door  
 (1) No - door did not open  
 (2) Yes - door opened  
 (9) Unknown

## 97. Adaptive (Assistive) Driving Equipment

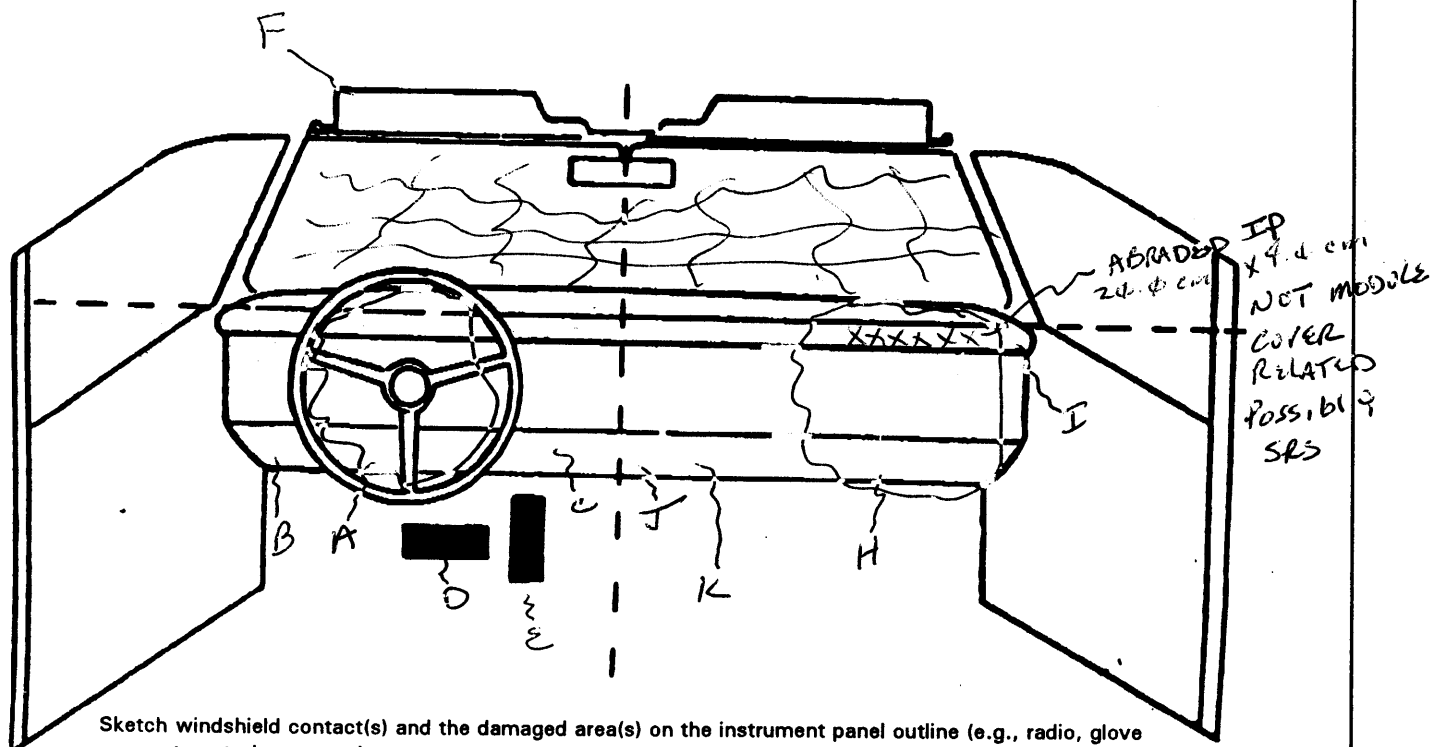
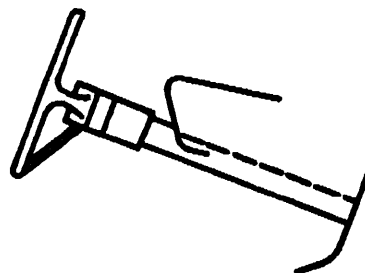
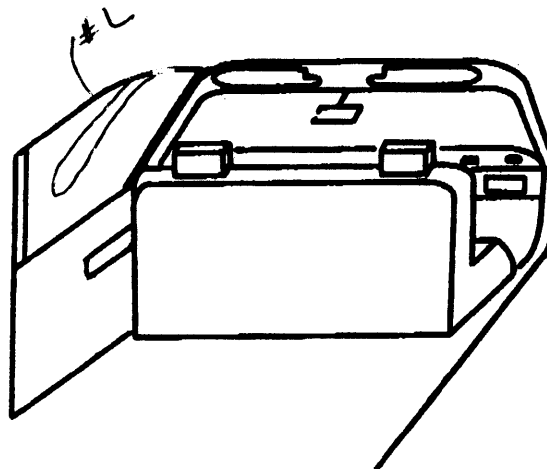
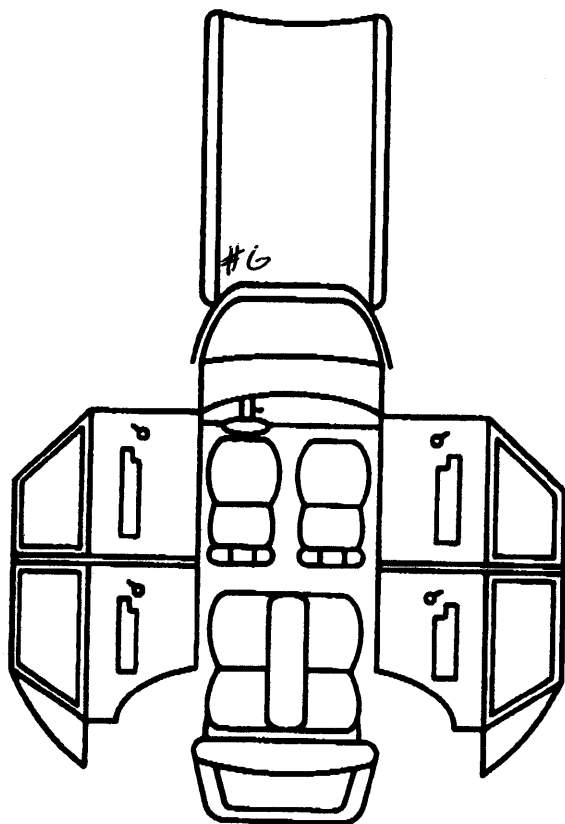
φ

- (0) No adaptive driving equipment  
 (1) Adaptive driving equipment installed (Check all that apply.)  
☐ Hand controls for braking/acceleration  
☐ Steering control devices (attached to OEM steering wheel)  
☐ Steering knob attached to steering wheel  
☐ Low effort power steering (unit or device)  
☐ Replacement steering wheel (i.e., reduced diameter)  
☐ Joy-stick steering controls  
☐ Wheelchair tie-downs  
☐ Modification to seat belts (specify): \_\_\_\_\_  
☐ Additional or relocated switches (specify): \_\_\_\_\_  
☐ Raised roof  
☐ Wall-mounted head rest (used behind wheelchair)  
☐ Other adaptive device (specify): \_\_\_\_\_

(9) Unknown

## VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).

Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.



## POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	17Φ	1	—	Deployed	2
B	Φ1Φ	1	L-KNEE	DENTED BOLSTER	2
C	Φ11	1	R-KNEE	DENTED BOLSTER	2
D	254	1	—	MOVED - JAMMED	3
E	254	1	—	MOVED - JAMMED TO RIGHT	3
F	ΦΦ3	1	—	SCOFF - INDENTATION	3
G	2Φ5	1	—	SCOFF - INDENTATION	3
H	18Φ	2	FACE, CHEST	INJURIES	1
I	11Φ	2	—	MISSING VENT	9
J	Φ19	—	—	COIN TRAY KNOCKED DOWN	9
K	Φ11	—	—	HEATER MODULE MISSING	9
L	Φ59	1	HEAD	INJURY, PLASTIC COVER INTRODUCED	2
M					
N					

## FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tapedeck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object, (specify):
- (019) Other front object (specify):

COIN TRAY

## CODES FOR INTERIOR COMPONENTS

## LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify):
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify):

## RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests
- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify):
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify):

VENT

## INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify):
- (155) Head restraint system
- (160) Other occupants (specify):
- (161) Interior loose objects
- (162) Child safety seat (specify):
- (163) Other interior object (specify):

## AIR BAG

- (170) Air bag-driver side
- (175) Air bag compartment cover-driver side
- (180) Air bag-passenger side
- (185) Air bag compartment cover-passenger side
- (190) Other air bag (specify):
- (195) Other air bag compartment cover (specify):

## ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top

## FLOOR

- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

## REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify):

## ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts,

(specify):

- (409) Additional or relocated switches, (specify):

(410) Raised roof

(411) Wall mounted head rest (used behind wheel chair)

(412) Other adaptive device (specify):

## CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

# MANUAL RESTRAINTS

**NOTES:** Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a child safety seat is present, encode the data on the back of this page 11.

If the vehicle has automatic restraints available, encode the appropriate data on page 6.

		Left	Center	Right
FIRST	A-Availability	4	3	4
	B-Evidence of usage	LOADING, CURLING, WEBBING TRANSFER	SCRATCHED LATCH	LOADING, CURLING, WEBBING, TRANSFER DRING
	C-Used in this crash?	Φ Φ	Φ Φ	Φ Φ
	D-Proper Use	1	Φ	
	E-Failure Modes	1	Φ	1
	F-Anchorage Adjustment	1	Φ	1
SECOND	A-Availability	4	3	4
	B-Evidence of usage	SCRATCHED	LATCH PLATES →	
	C-Used in this crash?	Φ Φ	Φ Φ	Φ Φ
	D-Proper Use	Φ	Φ	Φ
	E-Failure Modes	Φ	Φ	Φ
	F-Anchorage Adjustment	1	Φ	1
OTHER	A-Availability			
	B-Evidence of usage			
	C-Used in this crash?			
	D-Proper Use			
	E-Failure Modes			
	F-Anchorage Adjustment			

## A-Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

### Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

- (9) Unknown

## B/C-Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown
- (08) Other belt used (specify):
- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat - type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

## D-Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

### Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):
- (8) Other improper use of manual belt system (specify):
- (9) Unknown

## E-Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):
- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other manual belt failure (specify):
- (9) Unknown

## F-Shoulder Belt Upper Anchorage Adjustment

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

### Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

**AUTOMATIC RESTRAINTS**

**NOTES:** Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

**AIR BAGS**

		Frontal Air Bags--Left Front	Frontal Air Bags-Right Front	Other Air Bag
F I R S T	Availability/Function	/	/	Ø
	Deployment	/	/	Ø
	Failure	/	/	Ø

**Air Bag System Availability/Function**

- (0) Not equipped/not available  
(1) Air bag

*Non-functional*

- (2) Air bag disconnected (specify):  
(3) Air bag not reinstalled  
(9) Unknown

**Air Bag System Deployment  
(This Occupant Position)**

- (0) Not equipped/not available  
(1) Deployed during accident (as a result of impact)  
(2) Deployed inadvertently just prior to accident  
(3) Deployed, accident sequence undetermined  
(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
(5) Unknown if deployed  
(7) Nondeployed  
(9) Unknown

**Are There Indications of Air Bag System Failure? (This Occupant Position)**

- (0) Not equipped/not available  
(1) No  
(2) Yes (specify):  
(9) Unknown

**AUTOMATIC BELTS**

		Left	Right
F I R S T	A-Availability/Function	Ø	Ø
	B-Use	Ø	Ø
	C-Type	Ø	Ø
	D-Proper Use	Ø	Ø
	E-Failure Modes	Ø	Ø

**A-Automatic (Passive) Belt System Availability/Function**

- (0) Not equipped/not available  
(1) 2 point automatic belts  
(2) 3 point automatic belts  
(3) Automatic belts - type unknown

*Non-functional*

- (4) Automatic belts destroyed or rendered inoperative  
(9) Unknown

**B-Automatic (Passive) Belt System Use**

- (0) Not equipped/not available/destroyed or rendered inoperative  
(1) Automatic belt in use  
(2) Automatic belt not in use (manually disconnected, motorized track inoperative)  
(3) Automatic belt use unknown  
(9) Unknown

**C-Automatic (Passive) Belt System Type**

- (0) Not equipped/not available  
(1) Non-motorized system  
(2) Motorized system  
(9) Unknown

**D-Proper Use of Automatic (Passive) Belt System**

- (0) Not equipped/not available/not used  
(1) Automatic belt used properly  
(2) Automatic belt used properly with child safety seat

*Automatic Belt Used Improperly*

- (3) Automatic shoulder belt worn under arm  
(4) Automatic shoulder belt worn behind back  
(5) Automatic belt worn around more than one person  
(6) Lap portion of automatic belt worn on abdomen  
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):

- (8) Other improper use of automatic belt system (specify):  
(9) Unknown

**E-Automatic (Passive) Belt Failure Modes During Accident**

- (0) Not equipped/not available/not in use  
(1) No automatic belt failure(s)  
(2) Torn webbing (stretched webbing not included)  
(3) Broken buckle or latchplate  
(4) Upper anchorage separated  
(5) Other anchorage separated (specify):  
(6) Broken retractor  
(7) Combination of above (specify):  
(8) Other automatic belt failure (specify):  
(9) Unknown



# FIRST SEAT FRONTAL AIR BAGS

**NOTES:** Encode the applicable data *for the driver and first seat passenger* in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

	Driver	Passenger
A-Type of air bag?	1	1
B-Flaps open at tear points?	2	2
C-Flaps damaged?	1	1
D-Air bag damaged?	01	01
E-Source of air bag damage	01	01
F-Air bag tethered?	2, 2	1
G-Air bag have vent ports?	2, 2	2, 2
H-Other occupant contact air bag?	1	1
I-Occupant wearing eyewear?	2	1

## A-Type of Air Bag

- (0) Not equipped/not available
- (1) Original manufacturer installed system
- (2) Retrofitted air bag
- (3) Replacement air bag
- (8) Unknown type of air bag
- (9) Unknown

## B-Did Air Bag Module Cover Flap(s) Open At Designated Tear Points?

- (0) Not equipped/not available
- (1) No
- (2) Yes
- (3) Deployed, unknown if flap(s) opened at designated tear points
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## C-Were Air Bag Module Cover Flap(s) Damaged?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if air bag module cover flap(s) damaged
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## D-Was There Damage To The Air Bag?

- (00) Not equipped/not available
- (01) Not damaged

### Yes - Air Bag Damage

- (02) Ruptured
- (03) Cut
- (04) Torn
- (05) Holed
- (06) Burned
- (07) Abraded
- (88) Other damage (specify):

- (95) Damaged, details unknown
- (96) Deployed, unknown if damaged
- (97) Not deployed
- (98) Unknown if deployed
- (99) Unknown

## E-Source of Air Bag Damage

- (00) Not equipped/not available
- (01) Not damaged
- (02) Object worn by occupant, (specify):
- (03) Object carried by occupant, (specify):
- (04) Adaptive/assistive controls, (specify):
- (05) Fire in vehicle
- (06) Thermal burns
- (07) Rescue or emergency efforts
- (88) Other damage source (specify):
- (95) Damaged, unknown source
- (96) Deployed, unknown if damaged
- (97) Not deployed
- (98) Unknown if deployed
- (99) Unknown

## F-Was The Air Bag Tethered?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of tether straps):
- (3) Deployed, unknown if tethered
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## G-Did The Air Bag Have Vent Ports?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of vent ports):
- (3) Deployed, unknown if vent ports present
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## H-Was the Air Bag in this Occupant's Position Contacted by Another Occupant?

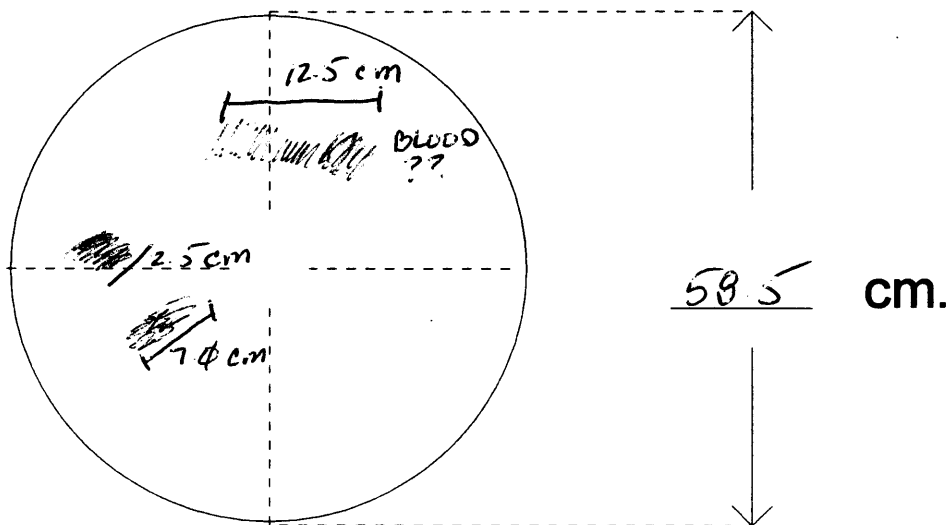
- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if other occupant contact to air bag
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## I-Was This Occupant Wearing Eye-wear?

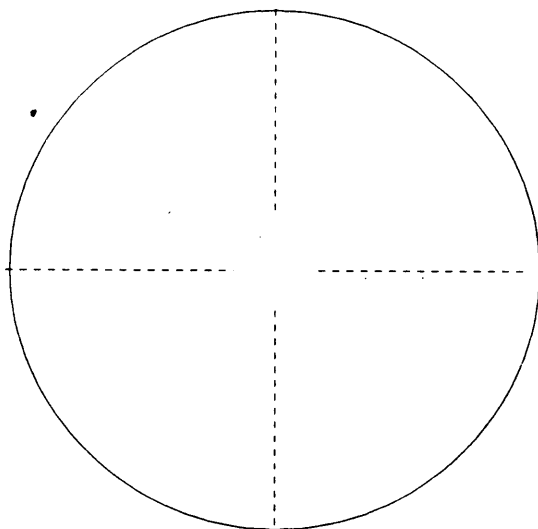
- (0) Not equipped/not available
- (1) No
- (2) Eyeglasses/sunglasses
- (3) Contact lenses
- (4) Deployed, unknown if eyewear worn
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## DRIVER AIR BAG DAMAGE AND CONTACT SKETCHES

## 1. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Front)



## 2. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Back)

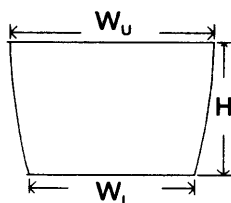


# DRIVER AIR BAG SKETCHES (Cont'd)

## 3. DRIVER AIR BAG MODULE COVER FLAP SIZE (SINGLE)

width ( $W_u$ ) \_\_\_\_\_ width ( $W_l$ ) \_\_\_\_\_

height ( $H$ ) \_\_\_\_\_



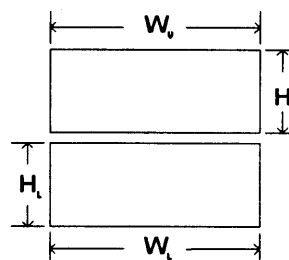
## 4. DRIVER AIR BAG MODULE COVER FLAP SIZE (DOUBLE)

a. Upper Flap

b. Lower Flap

width ( $W_u$ ) 24.5 width ( $W_l$ ) 24.5

height ( $H_u$ ) 16.5 height ( $H_l$ ) 7.9

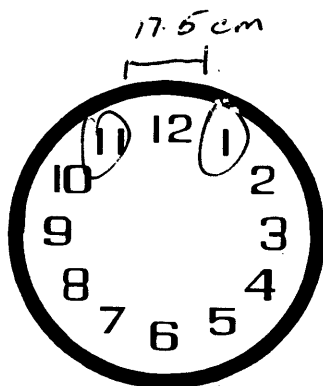


## 5. SKETCH OF OTHER TYPE OF AIR BAG MODULE FLAP AND SIZE

## 6. SKETCH OF OTHER TYPE OF AIR BAG VENT PORTS

## 7. SKETCH LOCATION OF CIRCULAR AIR BAG VENT PORTS

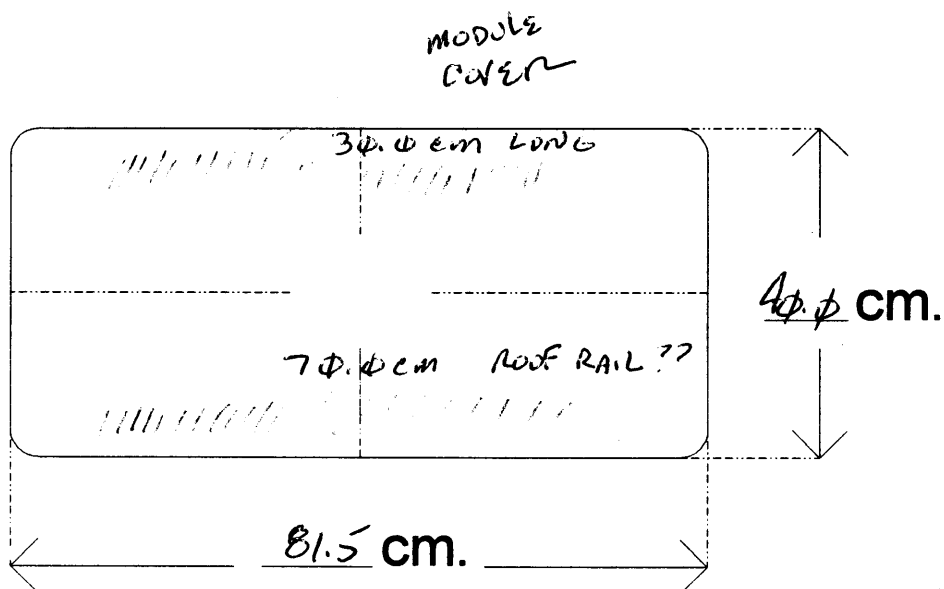
2.5 cm



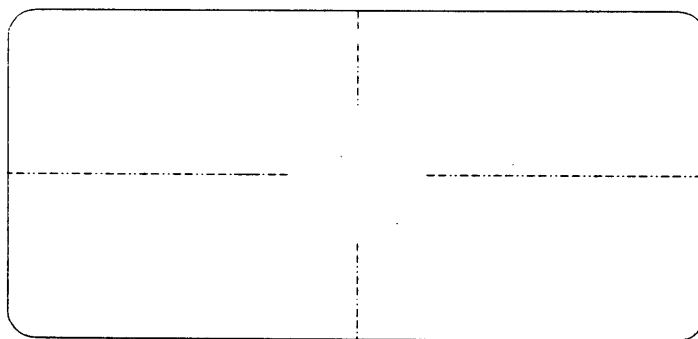


## PASSENGER AIR BAG DAMAGE AND CONTACT SKETCHES

## 1. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Front)



## 2. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Back)

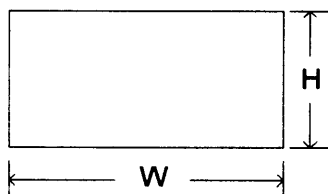


## PASSENGER AIR BAG SKETCHES (Cont'd)

## 3. PASSENGER AIR BAG MODULE COVER FLAP SIZE (SINGLE)

width (W) \_\_\_\_\_

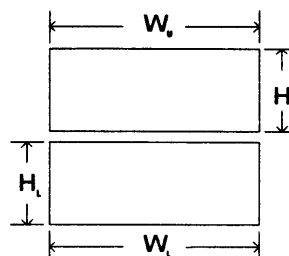
height (H) \_\_\_\_\_



## 4. PASSENGER AIR BAG MODULE COVER FLAP SIZE (DOUBLE)

a. Upper Flap

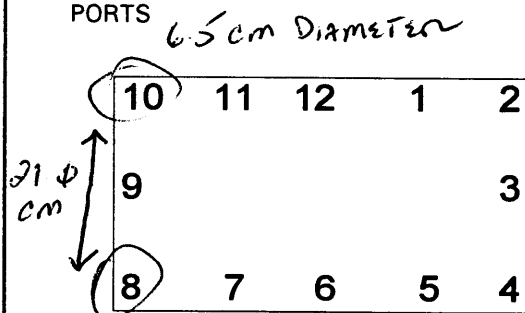
b. Lower Flap

width ( $W_U$ ) 31.3 width ( $W_L$ ) 31.3height ( $H_U$ ) 5.5 height ( $H_L$ ) 5.5

## 5. SKETCH OF OTHER TYPE OF AIR BAG MODULE FLAP AND SIZE

## 6. SKETCH OF OTHER TYPE OF AIR BAG VENT PORTS

## 7. SKETCH LOCATION OF RECTANGULAR AIR BAG VENT PORTS



**"OTHER" AIR BAG DAMAGE AND CONTACT SKETCHES**

1. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Front)

2. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Back)



**"OTHER" AIR BAG SKETCHES (Cont'd)**

**3. SKETCH AIR BAG MODULE FLAP AND SIZE OR OPENING FOR AIRBAG**

**4. SKETCH AIR BAG VENT PORTS**

## HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found on the next page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	A-Head Restraint Type/Damage	3	φ	3
	B-Seat Type	φ6	φ6	φ6
	C-Seat Orientation	1	1	1
	D-Seat Track Position	5	5	5
	E-Seat Back Incline Pre/Post Impact	10° 14	φ1	23 33°
	F-Seat Performance	1	1	1
SECOND	A-Head Restraint Type/Damage	1	φ	1
	B-Seat Type	φ3	φ3	φ3
	C-Seat Orientation	1	1	1
	D-Seat Track Position	1	1	1
	E-Seat Back Incline Pre/Post Impact	φ1	φ1	φ1
	F-Seat Performance	1	1	1
THIRD	A-Head Restraint Type/Damage			
	B-Seat Type			
	C-Seat Orientation			
	D-Seat Track Position			
	E-Seat Back Incline Pre/Post Impact			
	F-Seat Performance			
OTHER	A-Head Restraint Type/Damage			
	B-Seat Type			
	C-Seat Orientation			
	D-Seat Track Position			
	E-Seat Back Incline Pre/Post Impact			
	F-Seat Performance			

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE  
(I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

## HEAD RESTRAINTS/SEAT EVALUATION

**A-Head Restraint Type/Damage by Occupant at This Occupant Position**

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other
- Specify): \_\_\_\_\_
- (9) Unknown

**B-Seat Type (this Occupant Position)**

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Box mounted seat (i.e., van type)
- (10) Other seat type (specify): \_\_\_\_\_
- (99) Unknown

**C-Seat Orientation (this Occupant Position)**

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

**D-Seat Track Adjusted Position Prior To Impact**

- (0) Occupant not seated or no seat
- (1) Non-adjustable seat track

**Adjustable Seat Track**

- (2) Seat at forward most track position
- (3) Seat between forward most and middle track positions
- (4) Seat at middle track position
- (5) Seat between middle and rear most track positions
- (6) Seat at rear most track position
- (9) Unknown

**E-Seat Back Incline Prior and Post Impact**

- (00) Occupant not seated or no seat
- (01) Not adjustable

**Upright prior to impact**

- (11) Moved to completely rearward position
- (12) Moved to rearward midrange position
- (13) Moved to slightly rearward position
- (14) Retained pre-impact position
- (15) Moved to slightly forward position
- (16) Moved to forward midrange position
- (17) Moved to completely forward position

**Slightly reclined prior to impact**

- (21) Moved to completely rearward position
- (22) Moved to rearward midrange position
- (23) Retained pre-impact position
- (24) Moved to upright position
- (25) Moved to slightly forward position
- (26) Moved to forward midrange position
- (27) Moved to completely forward position

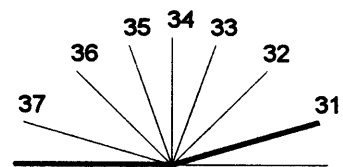
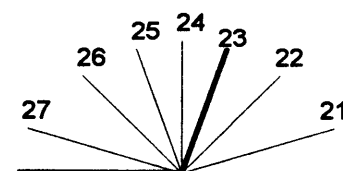
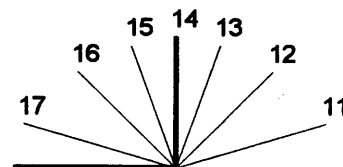
**Completely reclined prior to impact**

- (31) Retained pre-impact position
- (32) Moved to rearward midrange position
- (33) Moved to slightly rearward position
- (34) Moved to upright position
- (35) Moved to slightly forward position
- (36) Moved to forward midrange position
- (37) Moved to completely forward position

- (99) Unknown

**F-Seat Performance (this Occupant Position)**

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): \_\_\_\_\_
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

Coding diagrams for *Seat Back Incline Position Prior and Post Impact*



# CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model						

## Specify Below for Each Child Safety Seat

### 1. Type of Child Safety Seat

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify): \_\_\_\_\_
- (8) Unknown child safety seat type
- (9) Unknown if child safety seat used

### 2. Child Safety Seat Orientation

- (00) No child safety seat
- Designed for Rear Facing for This Age/Weight
- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify): \_\_\_\_\_
- (09) Unknown orientation

Designed for Forward Facing for This Age/Weight

- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify): \_\_\_\_\_
- (19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight

- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify): \_\_\_\_\_
- (29) Unknown orientation

- (99) Unknown if child safety seat used

### 3. Child Safety Seat Harness Usage

### 4. Child Safety Seat Shield Usage

### 5. Child Safety Seat Tether Usage

Note: Options Below Are Used for Variables 3-5.

- (00) No child safety seat

Not Designed with Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

- (99) Unknown if child safety seat used

### 6. Child Safety Seat Make/Model

(Specify make/model and occupant number)

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**EJECTION/ENTRAPMENT DATA**

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

**EJECTION**      No ☒      Yes ☐

Describe indications of ejection and body parts involved in partial ejection(s):

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Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

**Ejection**

- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, Unknown degree
- (9) Unknown

**Ejection Area**

- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear

**(7) Roof**

- (8) Other area (e.g., back of pickup, etc.) (specify):

(9) Unknown

**Ejection Medium**

- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify):

**(5) Integral structure**

- (8) Other medium (specify):

(9) Unknown

**Medium Status (Immediately Prior to Impact)**

- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

**ENTRAPMENT**      No ☒      Yes ☐

Describe entrapment mechanism:

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Component(s):

(Note on vehicle interior sketch)



# OCCUPANT ASSESSMENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum

DS96 1φ

3. Vehicle Number

φ 1

4. Occupant Number

φ 1

## OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

68

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

1

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height

178

Code actual height to the nearest  
centimeter.

(999) Unknown

7φ inches X 2.54 = \_\_\_\_\_ centimeters

8. Occupant's Weight

1φφ

Code actual weight to the nearest  
kilogram.

(999) Unknown

22φ pounds X .4536 = \_\_\_\_\_ kilograms

9. Occupant's Role

1

(1) Driver

(2) Passenger

(9) Unknown

## OCCUPANT'S SEATING

10. Occupant's Seat Position

11

*Front Seat*

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

*Second Seat*

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

*Third Seat*

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

*Fourth Seat*

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

φ

(0) Normal posture

*Abnormal posture*

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat  
(4) Sitting sideways or turned to talk with another  
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front  
of seat

(8) Other abnormal posture (specify):

(9) Unknown

BEST AVAILABLE



## EJECTION/ENTRAPMENT

12. Ejection φ

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area φ

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

14. Ejection Medium φ

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_
- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) φ

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment φ

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.  
(specify): \_\_\_\_\_
- (9) Unknown

17. Occupant Mobility 4

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or not oriented to time or place
- (2) Removed from vehicle due to perceived serious injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (8) Removed from vehicle for other reasons  
(specify): \_\_\_\_\_
- (9) Unknown

## BELT SYSTEM FUNCTION

<p>18. Manual (Active) Belt System Availability <u>4</u></p> <p>(0) None available            (1) Belt removed/destroyed            (2) Shoulder belt            (3) Lap belt            (4) Lap and shoulder belt            (5) Belt available—type unknown</p> <p><i>Integral Belt Partially Destroyed</i>            (6) Shoulder belt (lap belt destroyed/removed)            (7) Lap belt (shoulder belt destroyed/removed)            (8) Other belt (specify): _____</p> <p>(9) Unknown _____</p>	<p>22. Manual Shoulder Belt Upper Anchorage Adjustment <u>1</u></p> <p>(0) No manual shoulder belt            (1) No upper anchorage adjustment for manual shoulder belt</p> <p><i>Adjustable shoulder Belt Upper Anchorage</i>            (2) In full up position            (3) In mid position            (4) In full down position            (5) Position unknown            (9) Unknown if position has adjustable upper anchorage adjustment</p>
<p>19. Manual (Active) Belt System Use <u>4</u></p> <p>(00) None used, not available, or belt removed/destroyed            (01) Inoperative (specify): _____</p> <p>(02) Shoulder belt _____            (03) Lap belt _____            (04) Lap and shoulder belt _____            (05) Belt used—type unknown _____            (08) Other belt used (specify): _____</p> <p>(12) Shoulder belt used with child safety seat            (13) Lap belt used with child safety seat            (14) Lap and shoulder belt used with child safety seat            (15) Belt used with child safety seat—type unknown            (18) Other belt used with child safety seat (specify): _____            (99) Unknown if belt used _____</p>	<p>23. Automatic (Passive) Belt System Availability/Function <u>Ø</u></p> <p>(0) Not equipped/not available            (1) 2 point automatic belts            (2) 3 point automatic belts            (3) Automatic belts - type unknown</p> <p><i>Non-functional</i>            (4) Automatic belts destroyed or rendered inoperative            (9) Unknown</p> <p>24. Automatic (Passive) Belt System Use <u>Ø</u></p> <p>(0) Not equipped/not available/destroyed or rendered inoperative            (1) Automatic belt in use            (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): _____            (3) Automatic belt use unknown _____            (9) Unknown</p>
<p>20. Proper Use of Manual (Active) Belts <u>1</u></p> <p>(0) None used or not available            (1) Belt used properly            (2) Belt used properly with child safety seat</p> <p><i>Belt Used Improperly</i>            (3) Shoulder belt worn under arm            (4) Shoulder belt worn behind back or seat            (5) Belt worn around more than one person            (6) Lap belt worn on abdomen            (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____</p> <p>(8) Other improper use of manual belt system (specify): _____            (9) Unknown _____</p>	<p>25. Automatic (Passive) Belt System Type <u>Ø</u></p> <p>(0) Not equipped/not available            (1) Non-motorized system            (2) Motorized system            (9) Unknown</p> <p>26. Proper Use of Automatic (Passive) Belt System <u>Ø</u></p> <p>(0) Not equipped/not available/not used            (1) Automatic belt used properly            (2) Automatic belt used properly with child safety seat</p> <p><i>Automatic Belt Used Improperly</i>            (3) Automatic shoulder belt worn under arm            (4) Automatic shoulder belt worn behind back            (5) Automatic belt worn around more than one person            (6) Lap portion of automatic belt worn on abdomen            (7) Automatic lap and shoulder belt or</p>
<p>21. Manual (Active) Belt Failure Modes During Accident <u>1</u></p> <p>(0) No manual belt used or not available            (1) No manual belt failure(s)            (2) Torn webbing (stretched webbing not included)            (3) Broken buckle or latchplate            (4) Upper anchorage separated            (5) Other anchorage separated (specify): _____</p> <p>(6) Broken retractor _____            (7) Combination of above (specify): _____            (8) Other manual belt failure (specify): _____            (9) Unknown _____</p>	<p>automatic shoulder belt used improperly with child safety seat (specify): _____</p> <p>(8) Other improper use of automatic belt system (specify): _____            (9) Unknown _____</p> <p>27. Automatic (Passive) Belt Failure Modes During Accident <u>Ø</u></p> <p>(0) Not equipped/not available/not in use            (1) No automatic belt failure(s)            (2) Torn webbing (stretched webbing not included)            (3) Broken buckle or latchplate            (4) Upper anchorage separated            (5) Other anchorage separated (specify): _____</p> <p>(6) Broken retractor _____            (7) Combination of above (specify): _____            (8) Other automatic belt failure (specify): _____            (9) Unknown _____</p>

## POLICE REPORTED RESTRAINT USE

## AIR BAG SYSTEM FUNCTION

28. Police Reported Belt Use 4

- (0) None used
- (1) Police did not indicate belt use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Automatic belt
- (8) Other type belt, (specify):

(9) Police indicated "unknown" \_\_\_\_\_

29. Police Reported Air Bag Availability/Function 2

- (0) No air bag available
- (1) Police did not indicate air bag availability/function
- (2) Deployed
- (3) Not deployed
- (4) Unknown if deployed
- (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- ☒ Vehicle inspection
- ☐ Official injury data
- ☐ Driver/occupant interview
- ☐ Other (specify):

☐ Unknown if belt used \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

30. Frontal Air Bag System Availability/Function (This Occupant Position) 1

- (0) Not equipped/not available
- (1) Air bag

*Non-functional*

- (2) Air bag disconnected (specify):

- (3) Air bag not reinstalled \_\_\_\_\_
- (9) Unknown

31. Frontal Air Bag System Deployment (This Occupant Position) 1

- (0) Not equipped/not available
- (1) Deployed during accident (as a result of impact)
- (2) Deployed inadvertently just prior to accident
- (3) Deployed, details unknown
- (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (5) Unknown if deployed
- (7) Nondeployed
- (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position) 0

- (0) Not equipped/not available
- (1) Air bag

*Non-functional*

- (2) Air bag disconnected (specify):

- (3) Air bag not reinstalled \_\_\_\_\_
- (9) Unknown

*Specify type of "other" air bag present:*

\_\_\_\_\_

33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) 0

- (0) Not equipped with an "other" air bag
- (1) Deployed during accident (as a result of impact)
- (2) Deployed inadvertently just prior to accident
- (3) Deployed, details unknown
- (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (5) Unknown if deployed
- (7) Nondeployed
- (9) Unknown

34. Are There Indications of Air Bag System Failure? (This Occupant Position) 0

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):

(9) Unknown \_\_\_\_\_



## FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 1

(0) Not equipped/not available

(1) No previous accidents

Yes

(2) Previous accident(s) without deployment(s)

(3) One previous accident with deployment

(4) More than one previous accident with at least one deployment

(8) Previous accidents, unknown deployment status

(9) Unknown

36. Type of Air Bag 1

(0) Not equipped/not available

(1) Original manufacturer installed system

(2) Retrofitted air bag

(3) Replacement air bag

(8) Unknown type of air bag

(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 1

(0) Not equipped/not available

(1) No prior maintenance

(2) Yes, prior maintenance (specify): \_\_\_\_\_

(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 01

(00) Not equipped/not available

Code the accident event sequence number that initiated the air bag deployment

(96) Deployed, unknown event

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

39. CDC For Air Bag Deployment Impact 1

(0) Not equipped/not available

(1) Highest delta V

(2) Second highest delta V

(3) Other non-coded delta V (specify): \_\_\_\_\_

(6) Deployed, unknown event

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

40. Longitudinal Component of

Delta V For Air Bag

Deployment Impact + 0 3 7

(\_000) Not equipped/not available

Code the value of the delta V for the impact that initiated the air bag deployment

(\_996) Deployment, unknown longitudinal Delta V

(\_997) Not deployed

(\_998) Unknown if deployed

(\_999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 2

(0) Not equipped/not available

(1) No

(2) Yes

(3) Deployed, unknown if flap(s) opened at designated tear points

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 1

(0) Not equipped/not available

(1) No

(2) Yes (specify): \_\_\_\_\_

(3) Deployed, unknown if air bag module cover flap(s) damaged

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

43. Was There Damage To The Air Bag? 01

(00) Not equipped/not available

(01) Not damaged

Yes - Air Bag Damage

(02) Ruptured

(03) Cut

(04) Torn

(05) Holed

(06) Burned

(07) Abraded

(88) Other damage (specify): \_\_\_\_\_

(95) Damaged, details unknown

(96) Deployed, unknown if damaged

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM  
EVALUATION *continued*

## HEAD RESTRAINT AND SEAT EVALUATION

44. Source of Air Bag Damage 1  
 (00) Not equipped/not available  
 (01) Not damaged  
 (02) Object worn by occupant, (specify):  
 (03) Object carried by occupant, (specify):  
 (04) Adaptive/assistive controls, (specify):  
 (05) Fire in vehicle  
 (06) Thermal burns  
 (07) Rescue or emergency efforts  
 (88) Other damage source (specify):  
 (95) Damaged, unknown source  
 (96) Deployed, unknown if damaged  
 (97) Not deployed  
 (98) Unknown if deployed  
 (99) Unknown
45. Was The Air Bag Tethered? 2  
 (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of tether straps): 2  
 (3) Deployed, unknown if tethered  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
46. Did The Air Bag Have Vent Ports? 2  
 (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of vent ports): 2  
 (3) Deployed, unknown if vent ports present  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 1  
 (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify):  
 (3) Deployed, unknown if other occupant contact to air bag  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
48. Was This Occupant Wearing Eye-wear? 2  
 (0) Not air bag equipped/air bag not available  
 (1) No  
 (2) Eyeglasses/sunglasses  
 (3) Contact lenses  
 (4) Deployed, unknown if eyewear worn  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown

49. Head Restraint Type/Damage by Occupant at This Occupant Position 3  
 (0) No head restraints  
 (1) Integral—no damage  
 (2) Integral—damaged during accident  
 (3) Adjustable—no damage  
 (4) Adjustable—damaged during accident  
 (5) Add-on—no damage  
 (6) Add-on—damaged during accident  
 (8) Other (specify):  
 (9) Unknown
50. Seat Type (this Occupant Position) 1  
 (00) Occupant not seated or no seat  
 (01) Bucket  
 (02) Bucket with folding back  
 (03) Bench  
 (04) Bench with separate back cushions  
 (05) Bench with folding back(s)  
 (06) Split bench with separate back cushions  
 (07) Split bench with folding back(s)  
 (08) Pedestal (i.e., column supported)  
 (09) Box mounted seat (i.e., van type)  
 (10) Other seat type (specify):  
 (99) Unknown
51. Seat Orientation (this Occupant Position) 1  
 (0) Occupant not seated or no seat  
 (1) Forward facing seat  
 (2) Rear facing seat  
 (3) Side facing seat (inward)  
 (4) Side facing seat (outward)  
 (8) Other (specify):  
 (9) Unknown
52. Seat Track Adjusted Position Prior To Impact 5  
 (0) Occupant not seated or no seat  
 (1) Non-adjustable seat track  
 Adjustable Seat Track  
 (2) Seat at forward most track position  
 (3) Seat between forward most and middle track positions  
 (4) Seat at middle track position  
 (5) Seat between middle and rear most track positions  
 (6) Seat at rear most track position  
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION *continued*53. Seat Back Incline Prior and Post Impact 14

(00) Occupant not seated or no seat

(01) Not adjustable

***Upright prior to impact***

(11) Moved to completely rearward position

(12) Moved to rearward midrange position

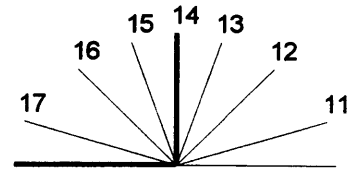
(13) Moved to slightly rearward position

(14) Retained pre-impact position

(15) Moved to slightly forward position

(16) Moved to forward midrange position

(17) Moved to completely forward position

***Slightly reclined prior to impact***

(21) Moved to completely rearward position

(22) Moved to rearward midrange position

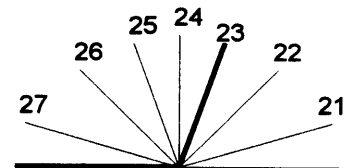
(23) Retained pre-impact position

(24) Moved to upright position

(25) Moved to slightly forward position

(26) Moved to forward midrange position

(27) Moved to completely forward position

***Completely reclined prior to impact***

(31) Retained pre-impact position

(32) Moved to rearward midrange position

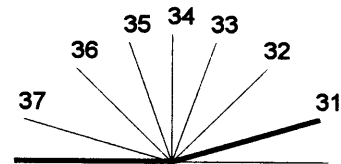
(33) Moved to slightly rearward position

(34) Moved to upright position

(35) Moved to slightly forward position

(36) Moved to forward midrange position

(37) Moved to completely forward position



(99) Unknown

54. Seat Performance (this Occupant Position) 1

(0) Occupant not seated or no seat

(1) No seat performance failure(s)

(2) Seat adjusters failed

(3) Seat back folding locks or "seat back" failed  
(specify): \_\_\_\_\_

(4) Seat track/anchors failed

(5) Deformed by impact of occupant

(6) Deformed by passenger compartment intrusion,  
(specify): \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other (specify): \_\_\_\_\_

(9) Unknown



## CHILD SAFETY SEAT

55. Child Safety Seat Make/Model φ φ φ  
 (000) No child safety seat  
 Applicable codes are found in your NASS CDS  
 Data Collection, Coding and Editing  
 (950) Built-in child safety seat  
 (997) Other make/model (specify):

(998) Unknown make/model  
 (999) Unknown if child safety seat used

56. Type of Child Safety Seat φ  
 (0) No child safety seat  
 (1) Infant seat  
 (2) Toddler seat  
 (3) Convertible seat  
 (4) Booster seat - with shield  
 (5) Booster seat - without shield  
 (7) Other type child safety seat (specify):

(8) Unknown child safety seat type  
 (9) Unknown if child safety seat used

57. Child Safety Seat Orientation φ φ  
 (00) No child safety seat

*Designed for Rear Facing for This Age/Weight*

(01) Rear facing  
 (02) Forward facing  
 (08) Other orientation (specify):

(09) Unknown orientation

*Designed For Forward Facing for This Age/Weight*

(11) Rear facing  
 (12) Forward facing  
 (18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight*

(21) Rear facing  
 (22) Forward facing  
 (28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage φ φ

59. Child Safety Seat Shield Usage φ φ

60. Child Safety Seat Tether Usage φ φ

Note: Options below applicable to  
 Variables OA58-OA60.

(00) No child safety seat

*Not Designed With Harness/Shield/Tether*

(01) After market harness/shield/tether  
 added, not used  
 (02) After market harness/shield/tether used  
 (03) Child safety seat used, but no after market  
 harness/shield/tether added  
 (09) Unknown if harness/shield/tether  
 added or used

*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used  
 (12) Harness/shield/tether used  
 (19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*

(21) Harness/shield/tether not used  
 (22) Harness/shield/tether used  
 (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

## INJURY CONSEQUENCES

61. Injury Severity (Police Rating) 3

- (0) O - No injury  
 (1) C - Possible injury  
 (2) B - Nonincapacitating injury  
 (3) A - Incapacitating injury  
 (4) K - Killed  
 (5) U - Injury, severity unknown  
 (6) Died prior to accident  
 (9) Unknown

62. Treatment - Mortality 3

- (0) No treatment  
 (1) Fatal  
 (2) Fatal - ruled disease (specify):  
 \_\_\_\_\_

*Nonfatal*

- (3) Hospitalization  
 (4) Transported and released  
 (5) Treatment at scene - nontransported  
 (6) Treatment later  
 (7) Treatment - other (specify):  
 \_\_\_\_\_  
 (8) Transported to a medical facility-unknown if treated  
 (9) Unknown

63. Type Of Medical Facility (for Initial Treatment) 2

- (0) Not treated at a medical facility  
 (1) Trauma center  
 (2) Hospital  
 (3) Medical clinic  
 (4) Physician's office  
 (5) Treatment later at medical facility  
 (8) Other (specify):  
 \_\_\_\_\_

- (9) Unknown

64. Hospital Stay 3 3 4

- (00) Not Hospitalized

Code the number of days (up through 60) that the occupant stayed in hospital.

- (61) 61 days or more  
 (99) Unknown

65. Working Days Lost 9 7

Code the number of days (up through 60) that the occupant lost from work due to the accident

- (00) No working days lost  
 (61) 61 days or more  
 (62) Fatally injured  
 (97) Not working prior to accident  
 (99) Unknown

## EMERGENCY RESPONSE INFORMATION

## EMS Notification

- (1) Not notified  
 (2) Notified  
 (9) Unknown

2  
 ROAD VEHICLE  
2  
 AIR VEHICLE

## EMS Notification Time (9999) Unknown

1 8 3 8  
 ROAD VEHICLE  
1 8 3 8  
 AIR VEHICLE

## EMS Arrival Time

- (9998) EMS cancelled or did not arrive  
 (9999) Unknown

1 8 4 3  
 ROAD VEHICLE  
1 8 5 3  
 AIR VEHICLE

## EMS Departure Time To Treatment Facility

- (9997) EMS arrived, provided treatment, but did not transport  
 (9998) EMS arrived, but was not used  
 (9999) Unknown

9 9 9 9  
 ROAD VEHICLE  
9 9 9 7  
 AIR VEHICLE

## EMS Arrival Time At Treatment Facility (9999) Unknown

9 9 9 9  
 ROAD VEHICLE  
9 9 9 9  
 AIR VEHICLE

## EMS Type

- (01) Fire department  
 (02) Rescue squad  
 (03) Police department  
 (04) Trauma unit  
 (05) Disaster unit  
 (06) Ambulance service unit  
 (07) Hospital  
 (08) Mortuaries/funeral homes  
 (98) Other, specify: \_\_\_\_\_  
 (99) Unknown

0 1  
 ROAD VEHICLE  
9 9  
 AIR VEHICLE

## EMS Care (on scene or during transport)

- (01) No care administered  
 (02) First aid  
 (03) Resuscitation  
 (04) CPR  
 (05) Emergency cardiac care  
 (06) Life support system monitoring (blood pressure, pulse rate, respiration, EKG)  
 (07) Emergency burn care  
 (08) Combination of above, specify: \_\_\_\_\_  
 (98) Other, specify: \_\_\_\_\_  
 (99) Unknown

9 9  
 ROAD VEHICLE  
9 9  
 AIR VEHICLE

**STOP WORK HERE VARIABLES 66-74 TO BE CODED BY THE ZONE CENTER**

**TO BE CODED BY THE ZONE CENTER****INJURY CONSEQUENCES****TRAUMA DATA**

## 66. Time to Death

0 0

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal  
(96) Fatal - ruled disease  
(99) Unknown

## 67. 1st Medically Reported Cause of Death

0 0

## 68. 2nd Medically Reported Cause of Death

0 0

## 69. 3rd Medically Reported Cause of Death

0 0

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes  
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

## 70. Number of Recorded Injuries for This Occupant

0 7

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries  
(97) Injured, details unknown  
(99) Unknown if injured

## 71. Glasgow Coma Scale (GCS) Score (at Medical Facility)

0 2

- (00) Not injured  
(01) Injured - not treated at medical facility  
(02) No GCS Score at medical facility  
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.  
(97) Injured, details unknown  
(99) Unknown if injured

## 72. Was the Occupant Given Blood?

1

- (1) No - blood not given  
(2) Yes - blood given

(specify units):

- (9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO<sub>3</sub>0 1

- (00) Not injured  
(01) Injured, ABGs not measured or reported  
(02-50) Code the actual value of the HCO<sub>3</sub>  
(96) ABGs reported, HCO<sub>3</sub> unknown  
(97) Injured, details unknown  
(99) Unknown if injured

**BELT USE DETERMINATION**

## 74. Primary Source of Belt Use Determination

1

- (0) Not equipped/not available/destroyed or rendered inoperative

- (1) Vehicle inspection  
(2) Official injury data  
(3) Driver/occupant interview  
(8) Other (specify):

- (9) Unknown if belt used





# OCCUPANT INJURY FORM

1. Primary Sampling Unit Number	3. Vehicle Number
2. Case Number - Stratum	4. Occupant Number

## INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	A.I.S. - 90					Injury Source Confidence Level	Occupant Direct/ Indirect Injury	Area Intrusion Number	ICD-9			
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity							
1st	5. 7	6. 8	7. 5	8. 26	9. 00	10. 2	11. 2	12. 254	13. 2	14. 2	15. 02	824.8
2nd	16. 7	17. 4	18. 5	19. 02	20. 20	21. 2	22. 1	23. 152	24. 1	25. 1	26. 00	807.43
3rd	27. 7	28. 8	29. 5	30. 22	31. 00	32. 2	33. 1	34. 254	35. 2	36. 1	37. 02	825.20
4th	38. 7	39. 4	40. 9	41. 02	42. 02	43. 1	44. 4	45. 152	46. 1	47. 1	48. 00	911.0
5th	49. 7	50. 5	51. 9	52. 02	53. 02	54. 1	55. 0	56. 152	57. 1	58. 1	59. 00	911.0
6th	60. 9	61. 1	62. 9	63. 06	64. 00	65. 1	66. 3	67. 060	68. 2	69. 1	70. 01	873.0
7th	71. 9	72. 7	73. 9	74. 06	75. 00	76. 1	77. 2	78. 170	79. 1	80. 1	81. 00	884.43
8th	82. ____	83. ____	84. ____	85. ____	86. ____	87. ____	88. ____	89. ____	90. ____	91. ____	92. ____	____
9th	93. ____	94. ____	95. ____	96. ____	97. ____	98. ____	99. ____	100. ____	101. ____	102. ____	103. ____	____
10th	104. ____	105. ____	106. ____	107. ____	108. ____	109. ____	110. ____	111. ____	112. ____	113. ____	114. ____	____

## OCCUPANT INJURY CLASSIFICATION

Body Region	Specific Anatomic Structure	Level of Injury	Aspect
(1) Head		Specific injuries are assigned consecutive two-digit numbers beginning with 02.	(1) Right
(2) Face			(2) Left
(3) Neck			(3) Bilateral
(4) Thorax	<u>Vessels, Nerves, Organs.</u>		(4) Central
(5) Abdomen	<u>Bones, Joints</u> are assigned consecutive two digit numbers beginning with 02.		(5) Anterior
(6) Spine			(6) Posterior
(7) Upper Extremity		To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.	(7) Superior
(8) Lower Extremity	The exceptions to this rule apply to:		(8) Inferior
(9) Unspecified			(9) Unknown
			(0) Whole region
<b>Type of Anatomic Structure</b>	<u>Whole Area</u>		
(1) Whole Area	(02) Skin - Abrasion		
(2) Vessels	(04) Skin - Contusion		
(3) Nerves	(06) Skin - Laceration		
(4) Organs (includes Muscles/ligaments)	(08) Skin - Avulsion		
(5) Skeletal (includes joints)	(10) Amputation		
(6) Head - LOC	(20) Burn		
(9) Skin	(30) Crush		
	(40) Degloving		
	(50) Injury - NFS		
	(90) Trauma, other than mechanical		
	<u>Head - LOC</u>		
	(02) Length of LOC		
	(04) Level		
	(06) of		
	(08) Consciousness		
	(10) Concussion		
	<u>Spine</u>		
	(02) Cervical		
	(04) Thoracic		
	(06) Lumbar		

## Abbreviated Injury Scale

- (1) Minor Injury
- (2) Moderate Injury
- (3) Serious Injury
- (4) Severe Injury
- (5) Critical Injury
- (6) Maximum (untreatable)
- (7) Injured, unknown severity

## SOURCE OF INJURY DATA

## INJURY SOURCE

## DIRECT/INDIRECT INJURY

## CONFIDENCE LEVEL

- OFFICIAL RECORDS**
- (1) Autopsy records with or without hospital/medical records
  - (2) Hospital/medical records other than emergency room (e.g., discharge summary)
  - (3) Emergency room records only (including associated X-rays or other lab reports)
  - (4) Private physician, walk-in or emergency clinic

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

- UNOFFICIAL RECORDS**
- (5) Lay coroner report
  - (6) E.M.S. personnel
  - (7) Interviewee
  - (8) Other source (specify): \_\_\_\_\_

- (9) Police

## INJURY SOURCES

## FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify): \_\_\_\_\_
- (019) Other front object (specify): \_\_\_\_\_

## LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify): \_\_\_\_\_
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify): \_\_\_\_\_

## RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify): \_\_\_\_\_
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify): \_\_\_\_\_

## INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify): \_\_\_\_\_
- (155) Head restraint system
- (160) Other occupants (specify): \_\_\_\_\_
- (161) Interior loose objects
- (162) Child safety seat (specify): \_\_\_\_\_
- (163) Other interior object (specify): \_\_\_\_\_

## AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth
- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify): \_\_\_\_\_
- (195) Other air bag compartment cover (specify): \_\_\_\_\_

## ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top

## FLOOR

- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

## REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify): \_\_\_\_\_

## ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts, (specify): \_\_\_\_\_
- (409) Additional or relocated switches, (specify): \_\_\_\_\_

- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify): \_\_\_\_\_

## EXTERIOR of OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware (e.g., outside mirror, antenna)
- (453) Other exterior surface or tires (specify): \_\_\_\_\_
- (454) Unknown exterior objects

## EXTERIOR of OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify): \_\_\_\_\_
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify): \_\_\_\_\_
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify): \_\_\_\_\_
- (514) Unknown exterior of other motor vehicle

## OTHER VEHICLE or OBJECT IN THE ENVIRONMENT

- (551) Ground
- (598) Other vehicle or object (specify): \_\_\_\_\_
- (599) Unknown vehicle or object

## NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify): \_\_\_\_\_
- (604) Air bag exhaust gases
- (697) Injured, unknown source



## OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Abrasions across  
chest

Seat belt  
webbing

Laceration to back of head

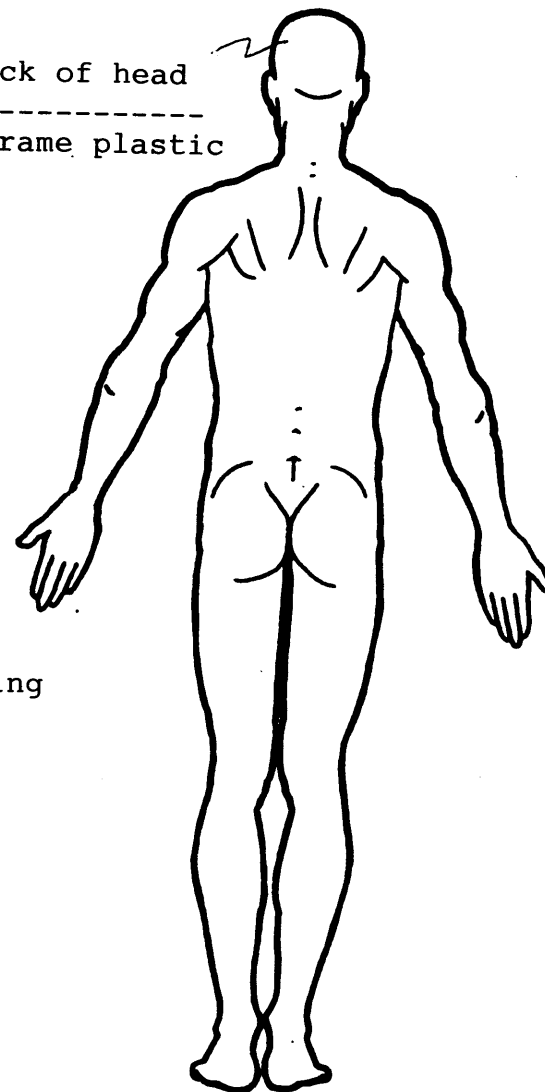
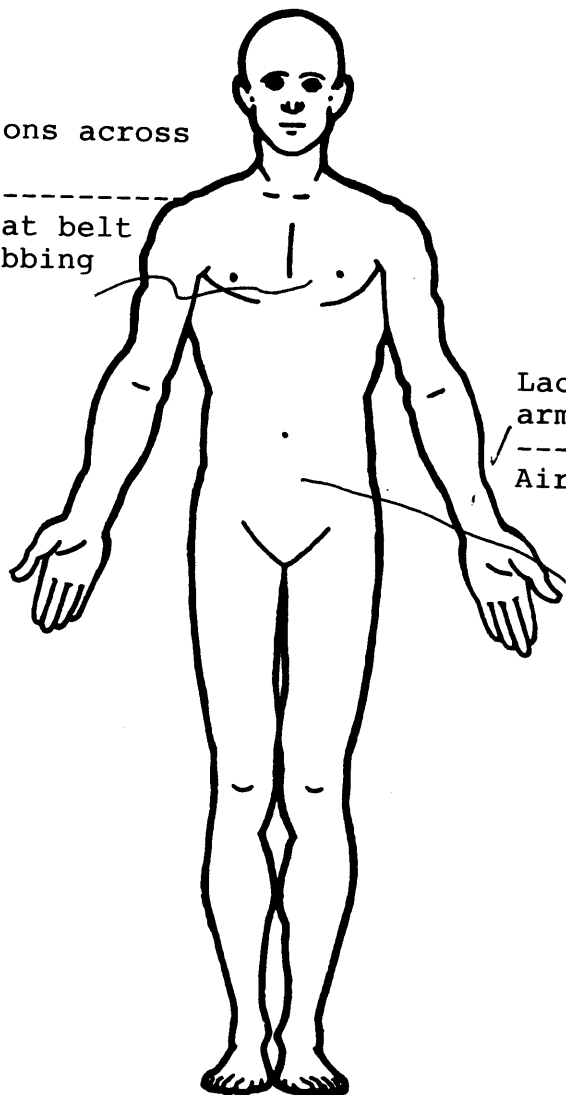
Source, Window frame plastic  
covering

Laceration to left  
arm

Air bag

Abrasion to  
lower left side  
of abdomen

Seat belt webbing



# OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

\_\_\_ No

XX Yes

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Interview

Blood Alcohol Level (mg/dl)

BAL = 0

Glasgow Coma Scale Score

GCSS =

Units of Blood Given

Units = 0

Arterial Blood Gases

pH =

PO<sub>2</sub> =

PCO<sub>2</sub> =

HCO<sub>3</sub> =

3 fractured ribs on the right side

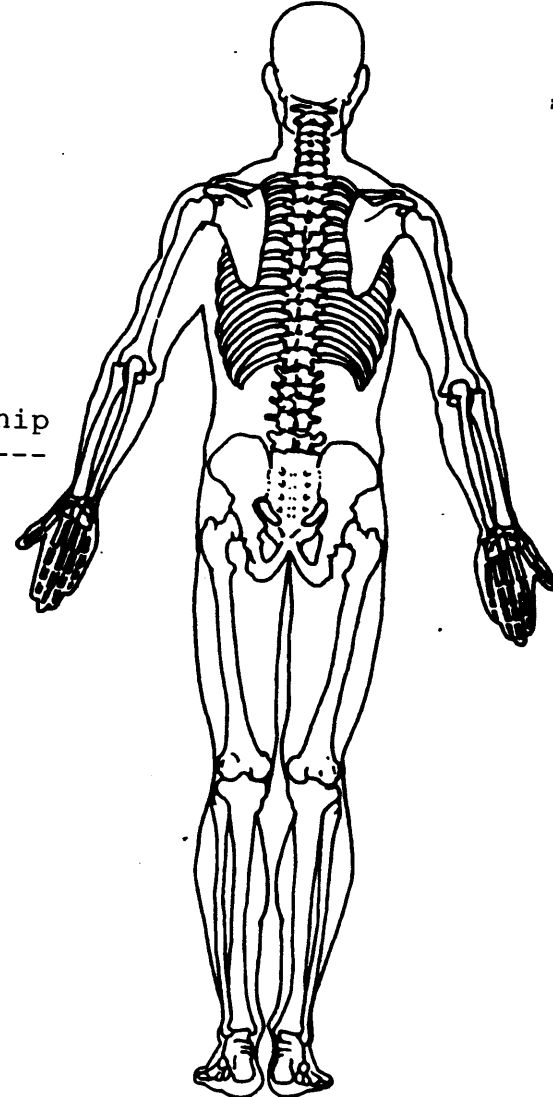
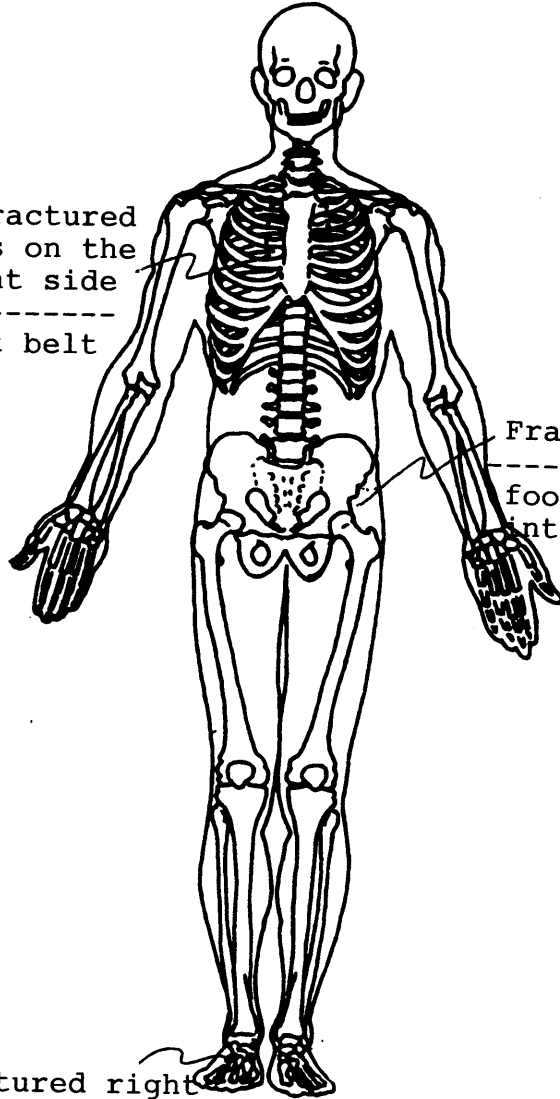
-----  
Seat belt

Fractured left hip

-----  
foot pedal intrusion

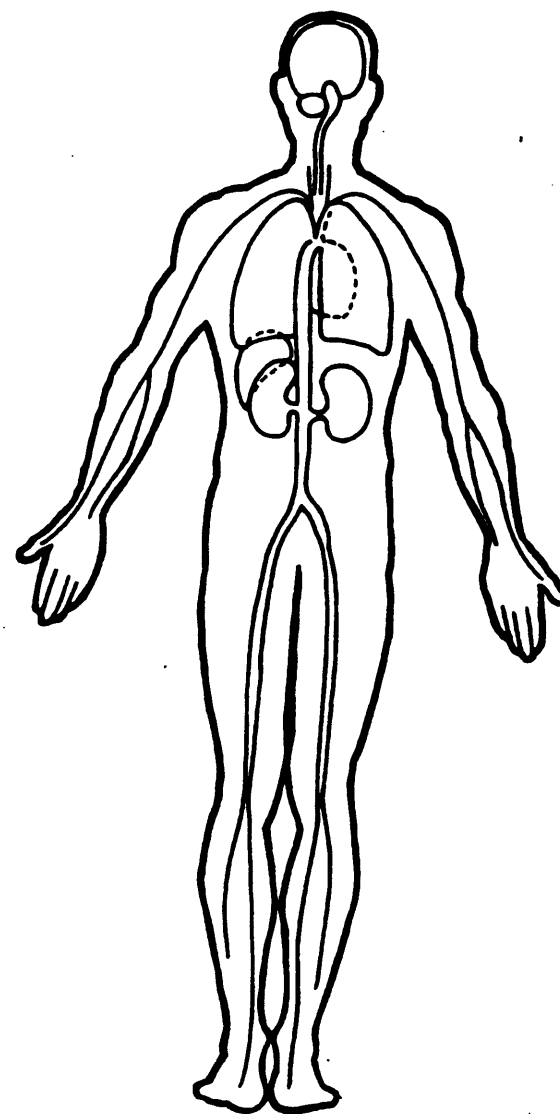
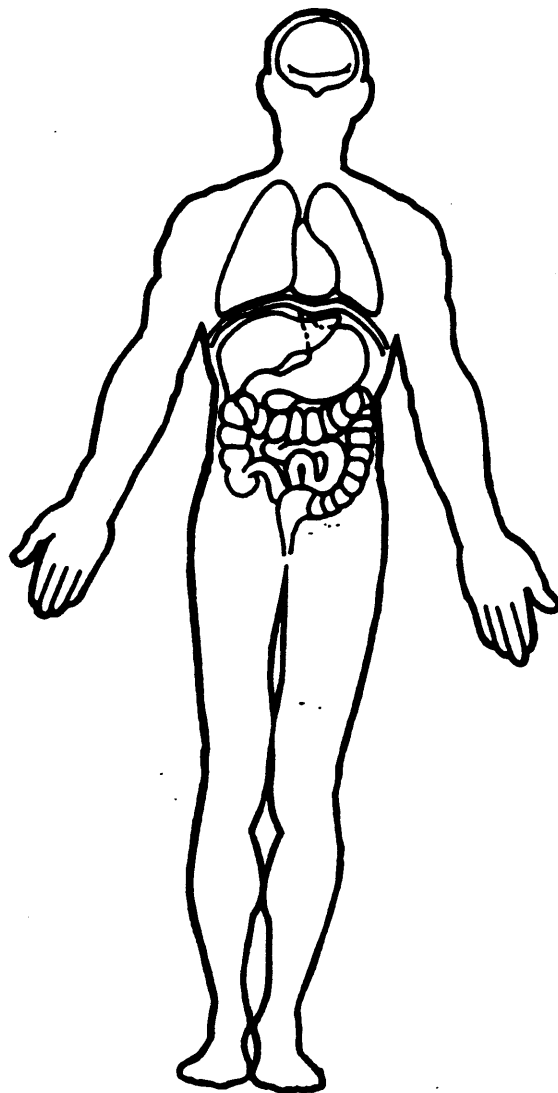
Fractured right metatarsal

-----  
Foot pedal



## OFFICIAL INJURY DATA —INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)







# OCCUPANT ASSESSMENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

## OCCUPANT'S SEATING

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

4. Occupant Number

## OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height

Code actual height to the nearest  
centimeter.

(999) Unknown

54 inches X 2.54 = 137 centimeters

8. Occupant's Weight

Code actual weight to the nearest  
kilogram.

(999) Unknown

57 pounds X .4536 = 26 kilograms

9. Occupant's Role

(1) Driver

(2) Passenger

(9) Unknown

10. Occupant's Seat Position

*Front Seat*

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

*Second Seat*

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

*Third Seat*

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

*Fourth Seat*

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

*Abnormal posture*

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another  
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front  
of seat

(8) Other abnormal posture (specify):

(9) Unknown

BEST AVAILABLE

## EJECTION/ENTRAPMENT

12. Ejection φ

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area φ

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

14. Ejection Medium φ

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_
- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) φ

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment φ

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.  
(specify): \_\_\_\_\_
- (9) Unknown

17. Occupant Mobility 2

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or not oriented to time or place
- (2) Removed from vehicle due to perceived serious injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (8) Removed from vehicle for other reasons  
(specify): \_\_\_\_\_
- (9) Unknown

## BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability 4
- (0) None available
  - (1) Belt removed/destroyed
  - (2) Shoulder belt
  - (3) Lap belt
  - (4) Lap and shoulder belt
  - (5) Belt available—type unknown
- Integral Belt Partially Destroyed*
- (6) Shoulder belt (lap belt destroyed/removed)
  - (7) Lap belt (shoulder belt destroyed/removed)
  - (8) Other belt (specify): \_\_\_\_\_
  - (9) Unknown
19. Manual (Active) Belt System Use 4
- (00) None used, not available, or belt removed/destroyed
  - (01) Inoperative (specify): \_\_\_\_\_
  - (02) Shoulder belt
  - (03) Lap belt
  - (04) Lap and shoulder belt
  - (05) Belt used—type unknown
  - (08) Other belt used (specify): \_\_\_\_\_
  - (12) Shoulder belt used with child safety seat
  - (13) Lap belt used with child safety seat
  - (14) Lap and shoulder belt used with child safety seat
  - (15) Belt used with child safety seat—type unknown
  - (18) Other belt used with child safety seat (specify): \_\_\_\_\_
  - (99) Unknown if belt used
20. Proper Use of Manual (Active) Belts 1
- (0) None used or not available
  - (1) Belt used properly
  - (2) Belt used properly with child safety seat
- Belt Used Improperly*
- (3) Shoulder belt worn under arm
  - (4) Shoulder belt worn behind back or seat
  - (5) Belt worn around more than one person
  - (6) Lap belt worn on abdomen
  - (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_
  - (8) Other improper use of manual belt system (specify): \_\_\_\_\_
  - (9) Unknown
21. Manual (Active) Belt Failure Modes During Accident 1
- (0) No manual belt used or not available
  - (1) No manual belt failure(s)
  - (2) Torn webbing (stretched webbing not included)
  - (3) Broken buckle or latchplate
  - (4) Upper anchorage separated
  - (5) Other anchorage separated (specify): \_\_\_\_\_
  - (6) Broken retractor
  - (7) Combination of above (specify): \_\_\_\_\_
  - (8) Other manual belt failure (specify): \_\_\_\_\_
  - (9) Unknown
22. Manual Shoulder Belt Upper Anchorage Adjustment 1
- (0) No manual shoulder belt
  - (1) No upper anchorage adjustment for manual shoulder belt
- Adjustable shoulder Belt Upper Anchorage*
- (2) In full up position
  - (3) In mid position
  - (4) In full down position
  - (5) Position unknown
  - (9) Unknown if position has adjustable upper anchorage adjustment
23. Automatic (Passive) Belt System Availability/Function 0
- (0) Not equipped/not available
  - (1) 2 point automatic belts
  - (2) 3 point automatic belts
  - (3) Automatic belts - type unknown
- Non-functional*
- (4) Automatic belts destroyed or rendered inoperative
  - (9) Unknown
24. Automatic (Passive) Belt System Use 0
- (0) Not equipped/not available/destroyed or rendered inoperative
  - (1) Automatic belt in use
  - (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): \_\_\_\_\_
  - (3) Automatic belt use unknown
  - (9) Unknown
25. Automatic (Passive) Belt System Type 0
- (0) Not equipped/not available
  - (1) Non-motorized system
  - (2) Motorized system
  - (9) Unknown
26. Proper Use of Automatic (Passive) Belt System 0
- (0) Not equipped/not available/not used
  - (1) Automatic belt used properly
  - (2) Automatic belt used properly with child safety seat
- Automatic Belt Used Improperly*
- (3) Automatic shoulder belt worn under arm
  - (4) Automatic shoulder belt worn behind back
  - (5) Automatic belt worn around more than one person
  - (6) Lap portion of automatic belt worn on abdomen
  - (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_
  - (8) Other improper use of automatic belt system (specify): \_\_\_\_\_
  - (9) Unknown
27. Automatic (Passive) Belt Failure Modes During Accident 0
- (0) Not equipped/not available/not in use
  - (1) No automatic belt failure(s)
  - (2) Torn webbing (stretched webbing not included)
  - (3) Broken buckle or latchplate
  - (4) Upper anchorage separated
  - (5) Other anchorage separated (specify): \_\_\_\_\_
  - (6) Broken retractor
  - (7) Combination of above (specify): \_\_\_\_\_
  - (8) Other automatic belt failure (specify): \_\_\_\_\_
  - (9) Unknown



## POLICE REPORTED RESTRAINT USE

## AIR BAG SYSTEM FUNCTION

28. Police Reported Belt Use 4

- (0) None used  
 (1) Police did not indicate belt use  
 (2) Shoulder belt  
 (3) Lap belt  
 (4) Lap and shoulder belt  
 (5) Belt used, type not specified  
 (6) Child safety seat  
 (7) Automatic belt  
 (8) Other type belt, (specify):

(9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function 7

- (0) No air bag available  
 (1) Police did not indicate air bag availability/function  
 (2) Deployed  
 (3) Not deployed  
 (4) Unknown if deployed  
 (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- ☒ Vehicle inspection  
☐ Official injury data  
☐ Driver/occupant interview  
☐ Other (specify):

☐ Unknown if belt used

30. Frontal Air Bag System Availability/Function 1

(This Occupant Position)

- (0) Not equipped/not available  
 (1) Air bag

*Non-functional*

- (2) Air bag disconnected (specify):

- (3) Air bag not reinstalled  
 (9) Unknown

31. Frontal Air Bag System Deployment 1

(This Occupant Position)

- (0) Not equipped/not available  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function 0

(This Occupant Position)

- (0) Not equipped/not available  
 (1) Air bag

*Non-functional*

- (2) Air bag disconnected (specify):

- (3) Air bag not reinstalled  
 (9) Unknown

*Specify type of "other" air bag present:*

33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) 0

(0) Not equipped with an "other" air bag

- (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

34. Are There Indications of Air Bag System Failure? 0

(This Occupant Position)

- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify):

(9) Unknown

## FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 1

- (0) Not equipped/not available  
(1) No previous accidents

Yes

- (2) Previous accident(s) without deployment(s)  
(3) One previous accident with deployment  
(4) More than one previous accident with at least one deployment  
(8) Previous accidents, unknown deployment status  
(9) Unknown

36. Type of Air Bag 1

- (0) Not equipped/not available  
(1) Original manufacturer installed system  
(2) Retrofitted air bag  
(3) Replacement air bag  
(8) Unknown type of air bag  
(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 1

- (0) Not equipped/not available  
(1) No prior maintenance  
(2) Yes, prior maintenance (specify):  
(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 01

- (00) Not equipped/not available  
Code the accident event sequence number that initiated the air bag deployment  
(96) Deployed, unknown event  
(97) Not deployed  
(98) Unknown if deployed  
(99) Unknown

39. CDC For Air Bag Deployment Impact 1

- (0) Not equipped/not available  
(1) Highest delta V  
(2) Second highest delta V  
(3) Other non-coded delta V (specify):  
(6) Deployed, unknown event  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

40. Longitudinal Component of Delta V For Air Bag Deployment Impact + 0 0 3 7

- ( \_ 000 ) Not equipped/not available  
Code the value of the delta V for the impact that initiated the air bag deployment  
( \_ 996 ) Deployment, unknown longitudinal Delta V  
( \_ 997 ) Not deployed  
( \_ 998 ) Unknown if deployed  
( \_ 999 ) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 2

- (0) Not equipped/not available  
(1) No  
(2) Yes  
(3) Deployed, unknown if flap(s) opened at designated tear points  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 1

- (0) Not equipped/not available  
(1) No  
(2) Yes (specify):  
(3) Deployed, unknown if air bag module cover flap(s) damaged  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

43. Was There Damage To The Air Bag? 01

- (00) Not equipped/not available  
(01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured  
(03) Cut  
(04) Torn  
(05) Holed  
(06) Burned  
(07) Abraded  
(88) Other damage (specify):  
(95) Damaged, details unknown  
(96) Deployed, unknown if damaged  
(97) Not deployed  
(98) Unknown if deployed  
(99) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM  
EVALUATION *continued*

## HEAD RESTRAINT AND SEAT EVALUATION

44. Source of Air Bag Damage 8 8
- (00) Not equipped/not available  
 (01) Not damaged  
 (02) Object worn by occupant, (specify):  
 (03) Object carried by occupant, (specify):  
 (04) Adaptive/assistive controls, (specify):  
 (05) Fire in vehicle  
 (06) Thermal burns  
 (07) Rescue or emergency efforts  
 (88) Other damage source (specify):  
MODULE COVER & ROOF RAIL  
 (95) Damaged, unknown source  
 (96) Deployed, unknown if damaged  
 (97) Not deployed  
 (98) Unknown if deployed  
 (99) Unknown
45. Was The Air Bag Tethered? 1
- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of tether straps):  
 (3) Deployed, unknown if tethered  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
46. Did The Air Bag Have Vent Ports? 2
- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of vent ports): 2  
 (3) Deployed, unknown if vent ports present  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 1
- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify):  
 (3) Deployed, unknown if other occupant contact to air bag  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
48. Was This Occupant Wearing Eye-wear? 1
- (0) Not air bag equipped/air bag not available  
 (1) No  
 (2) Eyeglasses/sunglasses  
 (3) Contact lenses  
 (4) Deployed, unknown if eyewear worn  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown

49. Head Restraint Type/Damage by Occupant at This Occupant Position 3
- (0) No head restraints  
 (1) Integral—no damage  
 (2) Integral—damaged during accident  
 (3) Adjustable—no damage  
 (4) Adjustable—damaged during accident  
 (5) Add-on—no damage  
 (6) Add-on—damaged during accident  
 (8) Other (specify):  
 (9) Unknown
50. Seat Type (this Occupant Position) φ b
- (00) Occupant not seated or no seat  
 (01) Bucket  
 (02) Bucket with folding back  
 (03) Bench  
 (04) Bench with separate back cushions  
 (05) Bench with folding back(s)  
 (06) Split bench with separate back cushions  
 (07) Split bench with folding back(s)  
 (08) Pedestal (i.e., column supported)  
 (09) Box mounted seat (i.e., van type)  
 (10) Other seat type (specify):  
 (99) Unknown
51. Seat Orientation (this Occupant Position) 1
- (0) Occupant not seated or no seat  
 (1) Forward facing seat  
 (2) Rear facing seat  
 (3) Side facing seat (inward)  
 (4) Side facing seat (outward)  
 (8) Other (specify):  
 (9) Unknown
52. Seat Track Adjusted Position Prior To Impact 5
- (0) Occupant not seated or no seat  
 (1) Non-adjustable seat track
- Adjustable Seat Track*
- (2) Seat at forward most track position  
 (3) Seat between forward most and middle track positions  
 (4) Seat at middle track position  
 (5) Seat between middle and rear most track positions  
 (6) Seat at rear most track position  
 (9) Unknown

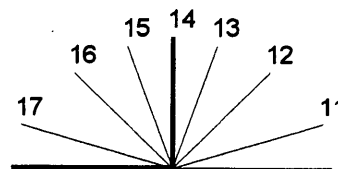


HEAD RESTRAINT AND SEAT EVALUATION *continued*53. Seat Back Incline Prior and Post Impact 23

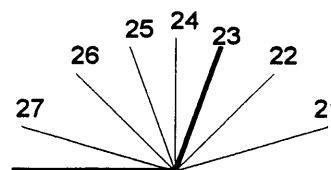
- (00) Occupant not seated or no seat  
 (01) Not adjustable

***Upright prior to impact***

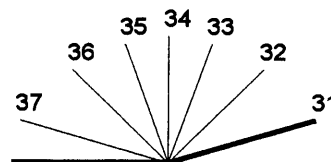
- (11) Moved to completely rearward position  
 (12) Moved to rearward midrange position  
 (13) Moved to slightly rearward position  
 (14) Retained pre-impact position  
 (15) Moved to slightly forward position  
 (16) Moved to forward midrange position  
 (17) Moved to completely forward position

***Slightly reclined prior to impact***

- (21) Moved to completely rearward position  
 (22) Moved to rearward midrange position  
 (23) Retained pre-impact position  
 (24) Moved to upright position  
 (25) Moved to slightly forward position  
 (26) Moved to forward midrange position  
 (27) Moved to completely forward position

***Completely reclined prior to impact***

- (31) Retained pre-impact position  
 (32) Moved to rearward midrange position  
 (33) Moved to slightly rearward position  
 (34) Moved to upright position  
 (35) Moved to slightly forward position  
 (36) Moved to forward midrange position  
 (37) Moved to completely forward position



(99) Unknown

54. Seat Performance (this Occupant Position) 1

- (0) Occupant not seated or no seat  
 (1) No seat performance failure(s)  
 (2) Seat adjusters failed  
 (3) Seat back folding locks or "seat back" failed (specify): \_\_\_\_\_  
 (4) Seat track/anchors failed  
 (5) Deformed by impact of occupant  
 (6) Deformed by passenger compartment intrusion, (specify): \_\_\_\_\_  
 (7) Combination of above (specify): \_\_\_\_\_  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

## CHILD SAFETY SEAT

55. Child Safety Seat Make/Model φ φ φ

(000) No child safety seat

Applicable codes are found in your NASS CDS  
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):  
\_\_\_\_\_

(998) Unknown make/model

(999) Unknown if child safety seat used

56. Type of Child Safety Seat φ

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat - with shield

(5) Booster seat - without shield

(7) Other type child safety seat (specify):  
\_\_\_\_\_

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

57. Child Safety Seat Orientation φ φ

(00) No child safety seat

*Designed for Rear Facing for This Age/Weight*

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):  
\_\_\_\_\_

(09) Unknown orientation

*Designed For Forward Facing for This Age/Weight*

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):  
\_\_\_\_\_

(19) Unknown orientation

*Unknown Design or Orientation For This  
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):  
\_\_\_\_\_

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage φ φ59. Child Safety Seat Shield Usage φ φ60. Child Safety Seat Tether Usage φ φNote: Options below applicable to  
Variables OA58-OA60.

(00) No child safety seat

*Not Designed With Harness/Shield/Tether*(01) After market harness/shield/tether  
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market  
harness/shield/tether added(09) Unknown if harness/shield/tether  
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

**INJURY CONSEQUENCES**

61. Injury Severity (Police Rating)

3

- (0) O - No injury  
 (1) C - Possible injury  
 (2) B - Nonincapacitating injury  
 (3) A - Incapacitating injury  
 (4) K - Killed  
 (5) U - Injury, severity unknown  
 (6) Died prior to accident  
 (9) Unknown

62. Treatment - Mortality

1

- (0) No treatment  
 (1) Fatal  
 (2) Fatal - ruled disease (specify):  
 \_\_\_\_\_

*Nonfatal*

- (3) Hospitalization  
 (4) Transported and released  
 (5) Treatment at scene - nontransported  
 (6) Treatment later  
 (7) Treatment - other (specify):  
 \_\_\_\_\_  
 (8) Transported to a medical facility-unknown if treated  
 (9) Unknown

63. Type Of Medical Facility (for Initial Treatment)

2

- (0) Not treated at a medical facility  
 (1) Trauma center  
 (2) Hospital  
 (3) Medical clinic  
 (4) Physician's office  
 (5) Treatment later at medical facility  
 (8) Other (specify):  
 \_\_\_\_\_

(9) Unknown

64. Hospital Stay

67

- (00) Not Hospitalized  
 \_\_\_\_\_ Code the number of days (up through 60) that the occupant stayed in hospital.  
 (61) 61 days or more  
 (99) Unknown

65. Working Days Lost

97

- \_\_\_\_\_ Code the number of days (up through 60) that the occupant lost from work due to the accident  
 (00) No working days lost  
 (61) 61 days or more  
 (62) Fatally injured  
 (97) Not working prior to accident  
 (99) Unknown

**EMERGENCY RESPONSE INFORMATION**

EMS Notification

- (1) Not notified  
 (2) Notified  
 (9) Unknown

ROAD VEHICLE 2AIR VEHICLE 2EMS NotificationTime  
(9999) Unknown

1 8 3 0  
 ROAD VEHICLE  
1 8 3 8  
 AIR VEHICLE

EMS Arrival Time

- (9998) EMS cancelled or did not arrive  
 (9999) Unknown

1 8 4 3  
 ROAD VEHICLE  
1 8 5 8  
 AIR VEHICLE

EMS Departure Time To  
Treatment Facility

- (9997) EMS arrived, provided treatment, but did not transport  
 (9998) EMS arrived, but was not used  
 (9999) Unknown

9 9 9 7  
 ROAD VEHICLE  
1 9 0 3  
 AIR VEHICLE

EMS Arrival Time At  
Treatment Facility  
(9999) Unknown

9 9 9 7  
 ROAD VEHICLE  
1 9 0 8  
 AIR VEHICLE

EMS Type

- (01) Fire department  
 (02) Rescue squad  
 (03) Police department  
 (04) Trauma unit  
 (05) Disaster unit  
 (06) Ambulance service unit  
 (07) Hospital  
 (08) Mortuaries/funeral homes  
 (98) Other, specify: \_\_\_\_\_  
 (99) Unknown

0 1  
 ROAD VEHICLE  
9 9  
 AIR VEHICLE

EMS Care (on scene or during transport)

- (01) No care administered  
 (02) First aid  
 (03) Resuscitation  
 (04) CPR  
 (05) Emergency cardiac care  
 (06) Life support system monitoring (blood pressure, pulse rate, respiration, EKG)  
 (07) Emergency burn care  
 (08) Combination of above, specify: \_\_\_\_\_  
 (98) Other, specify: \_\_\_\_\_  
 (99) Unknown

0 6  
 ROAD VEHICLE  
9 9  
 AIR VEHICLE

**STOP WORK HERE VARIABLES 66-74 TO BE CODED BY THE ZONE CENTER**



**TO BE CODED BY THE ZONE CENTER****INJURY CONSEQUENCES****TRAUMA DATA**66. Time to Death 37

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal  
(96) Fatal - ruled disease  
(99) Unknown

67. 1st Medically Reported Cause of Death φ 168. 2nd Medically Reported Cause of Death φ 269. 3rd Medically Reported Cause of Death φ 3

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes  
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

70. Number of Recorded Injuries for This Occupant φ 9

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries  
(97) Injured, details unknown  
(99) Unknown if injured

71. Glasgow Coma Scale (GCS) Score φ 3  
(at Medical Facility)

- (00) Not injured  
(01) Injured - not treated at medical facility  
(02) No GCS Score at medical facility  
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.  
(97) Injured, details unknown  
(99) Unknown if injured

72. Was the Occupant Given Blood? 1

- (1) No - blood not given  
(2) Yes - blood given

(specify units):

- (9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO<sub>3</sub> φ 7

- (00) Not injured  
(01) Injured, ABGs not measured or reported  
(02-50) Code the actual value of the HCO<sub>3</sub>  
(96) ABGs reported, HCO<sub>3</sub> unknown  
(97) Injured, details unknown  
(99) Unknown if injured

**BELT USE DETERMINATION**74. Primary Source of Belt Use Determination 1

- (0) Not equipped/not available/destroyed or rendered inoperative  
(1) Vehicle inspection  
(2) Official injury data  
(3) Driver/occupant interview  
(8) Other (specify):  
(9) Unknown if belt used



## OCCUPANT INJURY FORM

BEST AVAILABLE

Form Approved  
O.M.B. No. 2127-0021NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum

D59610

3. Vehicle Number

021

4. Occupant Number

02

## INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	A.I.S. - 90					Injury Source Confidence Level	Occupant Direct/ Indirect Injury	Area Intrusion Number	ICD-9			
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity							
1st	5. <u>1</u>	6. <u>1</u>	7. <u>4</u>	8. <u>06</u>	9. <u>74</u>	10. <u>5</u>	11. <u>9</u>	12. <u>180</u>	13. <u>1</u>	14. <u>1</u>	15. <u>00</u>	<u>348.5</u>
2nd	16. <u>2</u>	17. <u>1</u>	18. <u>4</u>	19. <u>06</u>	20. <u>50</u>	21. <u>4</u>	22. <u>9</u>	23. <u>180</u>	24. <u>1</u>	25. <u>1</u>	26. <u>00</u>	<u>852.25</u>
3rd	27. <u>2</u>	28. <u>1</u>	29. <u>4</u>	30. <u>06</u>	31. <u>70</u>	32. <u>4</u>	33. <u>9</u>	34. <u>180</u>	35. <u>1</u>	36. <u>1</u>	37. <u>00</u>	<u>852.25</u>
4th	38. <u>2</u>	39. <u>4</u>	40. <u>4</u>	41. <u>14</u>	42. <u>10</u>	43. <u>4</u>	44. <u>3</u>	45. <u>180</u>	46. <u>1</u>	47. <u>1</u>	48. <u>00</u>	<u>518.4</u>
5th	49. <u>2</u>	50. <u>4</u>	51. <u>4</u>	52. <u>10</u>	53. <u>02</u>	54. <u>3</u>	55. <u>4</u>	56. <u>180</u>	57. <u>1</u>	58. <u>1</u>	59. <u>00</u>	<u>816.01</u>
6th	60. <u>2</u>	61. <u>1</u>	62. <u>4</u>	63. <u>06</u>	64. <u>84</u>	65. <u>3</u>	66. <u>9</u>	67. <u>180</u>	68. <u>1</u>	69. <u>1</u>	70. <u>00</u>	<u>852.05</u>
7th	71. <u>2</u>	72. <u>5</u>	73. <u>9</u>	74. <u>02</u>	75. <u>02</u>	76. <u>1</u>	77. <u>8</u>	78. <u>152</u>	79. <u>1</u>	80. <u>1</u>	81. <u>00</u>	<u>911.0</u>
8th	82. <u>2</u>	83. <u>5</u>	84. <u>9</u>	85. <u>04</u>	86. <u>02</u>	87. <u>1</u>	88. <u>8</u>	89. <u>152</u>	90. <u>1</u>	91. <u>1</u>	92. <u>00</u>	<u>922.2</u>
9th	93. <u>2</u>	94. <u>4</u>	95. <u>9</u>	96. <u>04</u>	97. <u>02</u>	98. <u>1</u>	99. <u>4</u>	100. <u>152</u>	101. <u>1</u>	102. <u>1</u>	103. <u>00</u>	<u>922.1</u>
10th	104. <u>  </u>	105. <u>  </u>	106. <u>  </u>	107. <u>  </u>	108. <u>  </u>	109. <u>  </u>	110. <u>  </u>	111. <u>  </u>	112. <u>  </u>	113. <u>  </u>	114. <u>  </u>	<u>  </u>

## OCCUPANT INJURY CLASSIFICATION

Body Region	Specific Anatomic Structure	Level of Injury	Aspect
(1) Head		Specific injuries are assigned consecutive two-digit numbers beginning with 02.	(1) Right
(2) Face			(2) Left
(3) Neck	<u>Vessels, Nerves, Organs.</u>	To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.	(3) Bilateral
(4) Thorax	<u>Bones, Joints</u> are assigned consecutive two digit numbers beginning with 02.		(4) Central
(5) Abdomen		The exceptions to this rule apply to:	(5) Anterior
(6) Spine			(6) Posterior
(7) Upper Extremity			(7) Superior
(8) Lower Extremity			(8) Inferior
(9) Unspecified			(9) Unknown
			(0) Whole region
Type of Anatomic Structure	Whole Area	Abbreviated Injury Scale	
(1) Whole Area	(02) Skin - Abrasion	(1) Minor Injury	
(2) Vessels	(04) Skin - Contusion	(2) Moderate Injury	
(3) Nerves	(06) Skin - Laceration	(3) Serious Injury	
(4) Organs (includes Muscles/ligaments)	(08) Skin - Avulsion	(4) Severe Injury	
(5) Skeletal (includes joints)	(10) Amputation	(5) Critical Injury	
(6) Head - LOC	(20) Burn	(6) Maximum (untreatable)	
(9) Skin	(30) Crush	(7) Injured, unknown severity	
	(40) Degloving		
	(50) Injury - NFS		
	(90) Trauma, other than mechanical		
	<u>Head - LOC</u>		
	(02) Length of LOC		
	(04) Level		
	(06) of		
	(08) Consciousness		
	(10) Concussion		
	<u>Spine</u>		
	(02) Cervical		
	(04) Thoracic		
	(06) Lumbar		

## SOURCE OF INJURY DATA

## INJURY SOURCE

## DIRECT/INDIRECT INJURY

## CONFIDENCE LEVEL

OFFICIAL RECORDS

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL RECORDS

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): \_\_\_\_\_
- (9) Police

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source



## INJURY SOURCES

## FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify): \_\_\_\_\_
- (019) Other front object (specify): \_\_\_\_\_

## LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify): \_\_\_\_\_
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify): \_\_\_\_\_

## RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify): \_\_\_\_\_
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify): \_\_\_\_\_

## INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify): \_\_\_\_\_
- (155) Head restraint system
- (160) Other occupants (specify): \_\_\_\_\_
- (161) Interior loose objects
- (162) Child safety seat (specify): \_\_\_\_\_
- (163) Other interior object (specify): \_\_\_\_\_

## AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth
- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify): \_\_\_\_\_
- (195) Other air bag compartment cover (specify): \_\_\_\_\_

## ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top

## FLOOR

- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

## REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify): \_\_\_\_\_

## ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts, (specify): \_\_\_\_\_
- (409) Additional or relocated switches, (specify): \_\_\_\_\_
- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify): \_\_\_\_\_

## EXTERIOR of OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware (e.g., outside mirror, antenna)
- (453) Other exterior surface or tires (specify): \_\_\_\_\_
- (454) Unknown exterior objects

## EXTERIOR OF OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify): \_\_\_\_\_
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify): \_\_\_\_\_
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify): \_\_\_\_\_
- (514) Unknown exterior of other motor vehicle

## OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

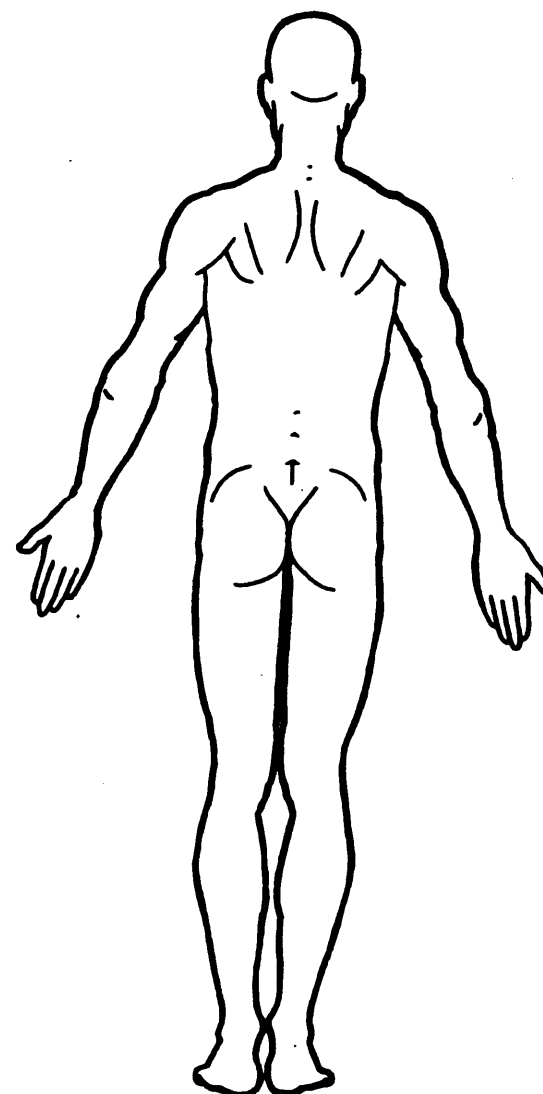
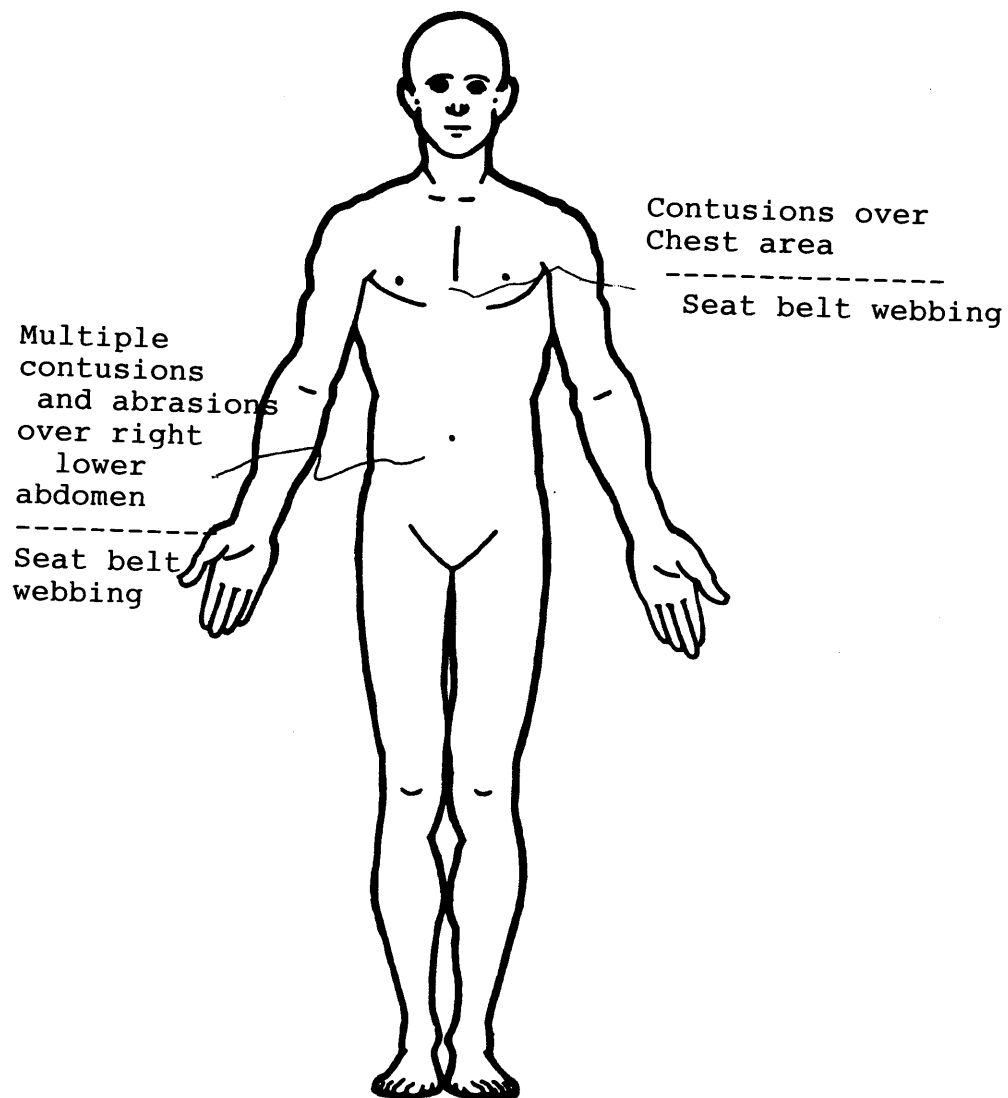
- (551) Ground
- (598) Other vehicle or object (specify): \_\_\_\_\_
- (599) Unknown vehicle or object

## NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify): \_\_\_\_\_
- (604) Air bag exhaust gases
- (697) Injured, unknown source

## OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Autopsy and Hospital Records

## OFFICIAL INJURY DATA —INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

## Autopsy &amp; Hospital Records

All injuries were result of air bag contact.

Massive brain edema

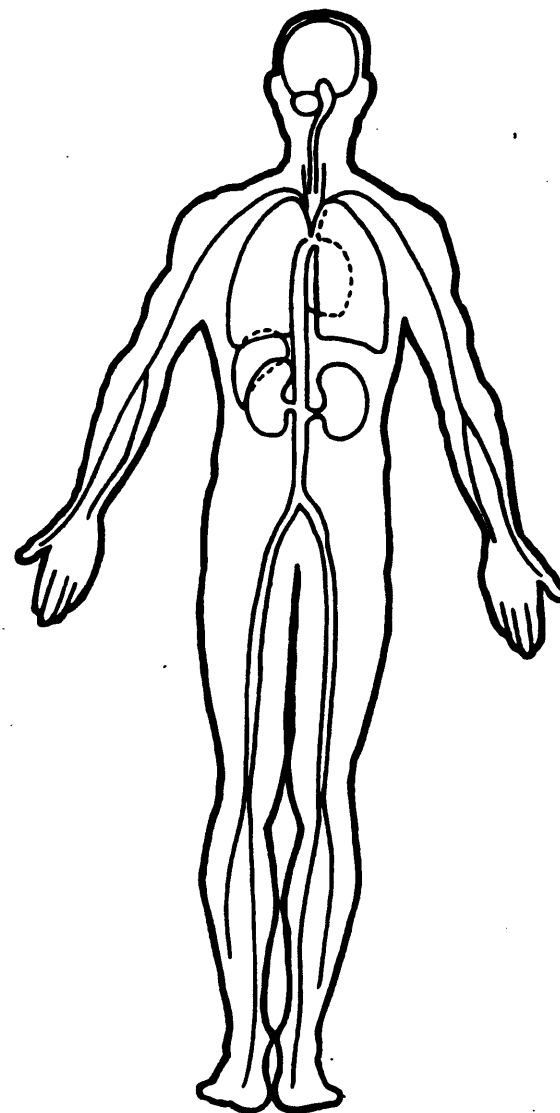
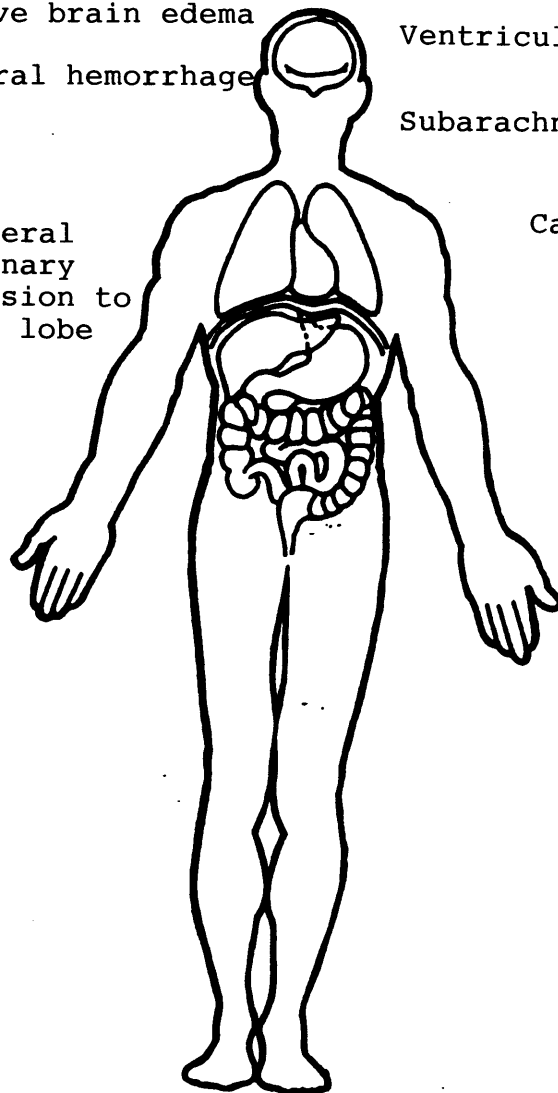
Ventricular hemorrhage

Subdural hemorrhage

Subarachnoid hemorrhage

Bilateral  
Pulmonary  
contusion to  
upper lobe

Cardiac Contusion





## OFFICIAL INJURY DATA — SKELETAL INJURIES

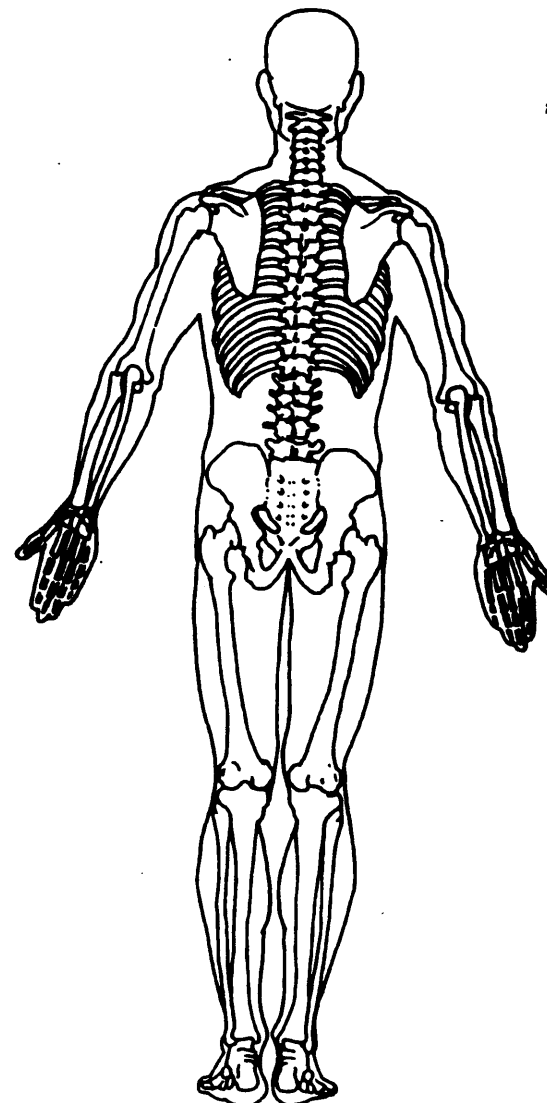
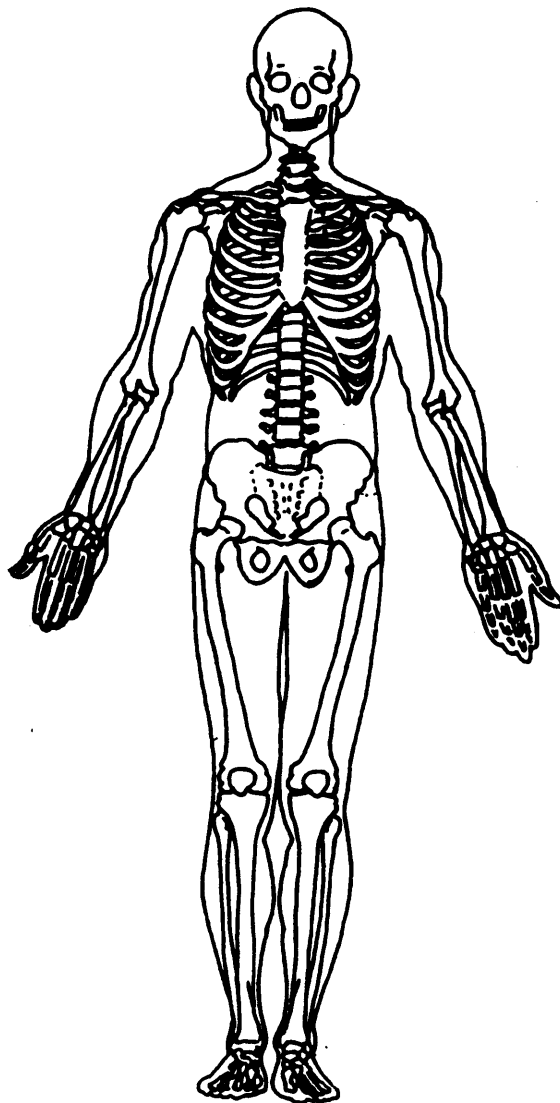
Restrained?

☐ No☒ Yes

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Blood Alcohol Level  
(mg/dl)BAL = 0Glasgow Coma  
Scale ScoreGCSS = 03Units of Blood  
GivenUnits = 0

Arterial Blood Gases

pH =     PO<sub>2</sub> =     PCO<sub>2</sub> =     HCO<sub>3</sub> =     



# OCCUPANT INJURY FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

3. Vehicle Number

2. Case Number - Stratum

4. Occupant Number

## INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	A.I.S. - 90					Injury Source Confidence Level	Occupant Direct/ Indirect Injury	Area Intrusion Number	ICD-9			
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity							
1st	5. 9	6. 1	7. 9	8. 66	9. 10	10. 1	11. 3	12. 697	13. 9	14. 7	15. 66	873.9
2nd	16. 9	17. 8	18. 9	19. 4	20. 2	21. 1	22. 9	23. 697	24. 9	25. 7	26. 66	924.5
3rd	27. 9	28. 4	29. 9	30. 4	31. 2	32. 1	33. 4	34. 152	35. 3	36. 1	37. 66	922.1
4th	38.	39.	40.	41.	42.	43.	44.	45.	46.	47.	48.	
5th	49.	50.	51.	52.	53.	54.	55.	56.	57.	58.	59.	
6th	60.	61.	62.	63.	64.	65.	66.	67.	68.	69.	70.	
7th	71.	72.	73.	74.	75.	76.	77.	78.	79.	80.	81.	
8th	82.	83.	84.	85.	86.	87.	88.	89.	90.	91.	92.	
9th	93.	94.	95.	96.	97.	98.	99.	100.	101.	102.	103.	
10th	104.	105.	106.	107.	108.	109.	110.	111.	112.	113.	114.	

## OCCUPANT INJURY CLASSIFICATION

Body Region	Specific Anatomic Structure	Level of Injury	Aspect
(1) Head		Specific injuries are assigned consecutive two-digit numbers beginning with 02.	(1) Right
(2) Face			(2) Left
(3) Neck	<u>Vessels, Nerves, Organs.</u>		(3) Bilateral
(4) Thorax	<u>Bones, Joints</u> are assigned consecutive two digit numbers beginning with 02.		(4) Central
(5) Abdomen			(5) Anterior
(6) Spine			(6) Posterior
(7) Upper Extremity		To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.	(7) Superior
(8) Lower Extremity	The exceptions to this rule apply to:		(8) Inferior
(9) Unspecified			(9) Unknown
			(0) Whole region
<b>Type of Anatomic Structure</b>	<u>Whole Area</u>		
(1) Whole Area	(02) Skin - Abrasion		
(2) Vessels	(04) Skin - Contusion		
(3) Nerves	(06) Skin - Laceration		
(4) Organs (includes Muscles/ligaments)	(08) Skin - Avulsion		
(5) Skeletal (includes joints)	(10) Amputation		
(6) Head - LOC	(20) Burn		
(9) Skin	(30) Crush		
	(40) Degloving		
	(50) Injury - NFS		
	(90) Trauma, other than mechanical		
	<u>Head - LOC</u>		
	(02) Length of LOC		
	(04) Level		
	(06) of		
	(08) Consciousness		
	(10) Concussion		
	<u>Spine</u>		
	(02) Cervical		
	(04) Thoracic		
	(06) Lumbar		
		<b>Abbreviated Injury Scale</b>	
		(1) Minor Injury	
		(2) Moderate Injury	
		(3) Serious Injury	
		(4) Severe Injury	
		(5) Critical Injury	
		(6) Maximum (untreatable)	
		(7) Injured, unknown severity	

## SOURCE OF INJURY DATA

## INJURY SOURCE

## DIRECT/INDIRECT INJURY

## CONFIDENCE LEVEL

<u>OFFICIAL RECORDS</u> (1) Autopsy records with or without hospital/medical records (2) Hospital/medical records other than emergency room (e.g., discharge summary) (3) Emergency room records only (including associated X-rays or other lab reports) (4) Private physician, walk-in or emergency clinic  <u>UNOFFICIAL RECORDS</u> (5) Lay coroner report (6) E.M.S. personnel (7) Interviewee (8) Other source (specify): _____ (9) Police	(1) Certain (2) Probable (3) Possible (9) Unknown	(1) Direct contact injury (2) Indirect contact injury (3) Noncontact injury (7) Injured, unknown source
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## INJURY SOURCES

## FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify): \_\_\_\_\_
- (019) Other front object (specify): \_\_\_\_\_

## LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify): \_\_\_\_\_
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify): \_\_\_\_\_

## RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify): \_\_\_\_\_
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify): \_\_\_\_\_

## INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify): \_\_\_\_\_
- (155) Head restraint system
- (160) Other occupants (specify): \_\_\_\_\_
- (161) Interior loose objects
- (162) Child safety seat (specify): \_\_\_\_\_
- (163) Other interior object (specify): \_\_\_\_\_

## AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth
- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify) \_\_\_\_\_
- (195) Other air bag compartment cover (specify) \_\_\_\_\_

## ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top

## FLOOR

- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

## REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify): \_\_\_\_\_

## ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts, (specify): \_\_\_\_\_
- (409) Additional or relocated switches, (specify): \_\_\_\_\_
- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify): \_\_\_\_\_

## EXTERIOR OF OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware (e.g., outside mirror, antenna)
- (453) Other exterior surface or tires (specify): \_\_\_\_\_
- (454) Unknown exterior objects

## EXTERIOR OF OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify): \_\_\_\_\_
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify): \_\_\_\_\_
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify): \_\_\_\_\_
- (514) Unknown exterior of other motor vehicle

## OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

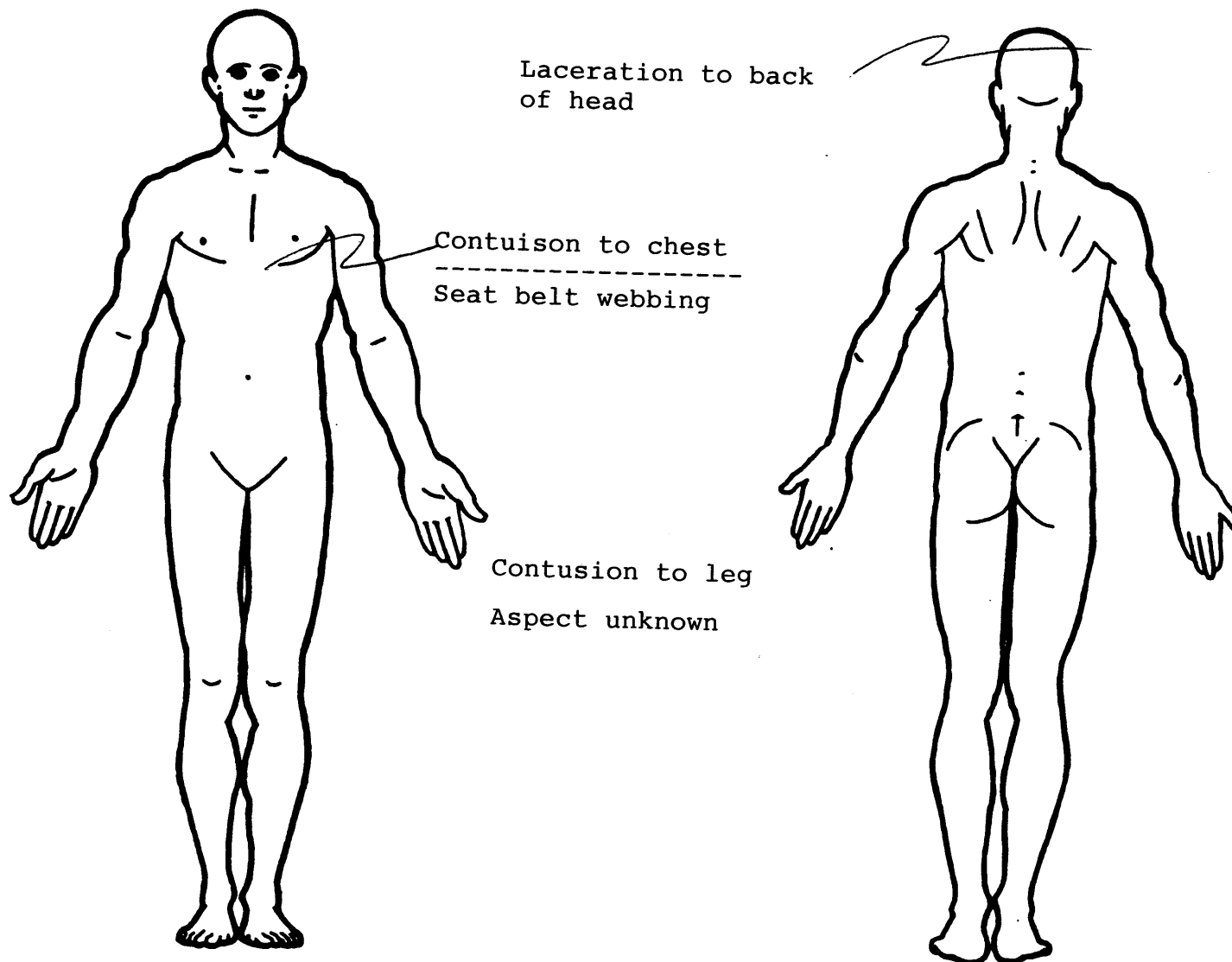
- (551) Ground
- (598) Other vehicle or object (specify): \_\_\_\_\_
- (599) Unknown vehicle or object

## NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify): \_\_\_\_\_
- (604) Air bag exhaust gases
- (697) Injured, unknown source

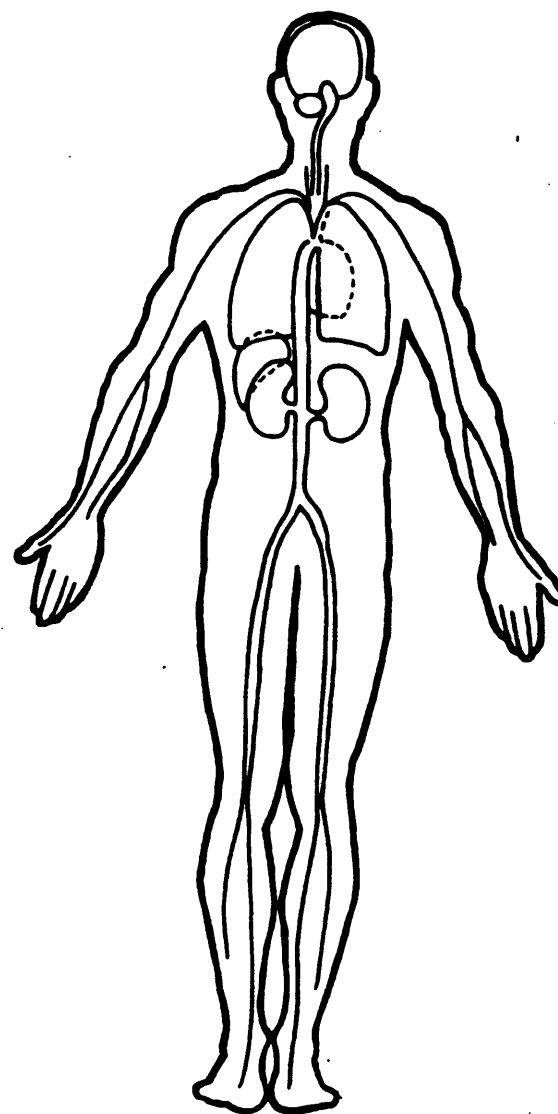
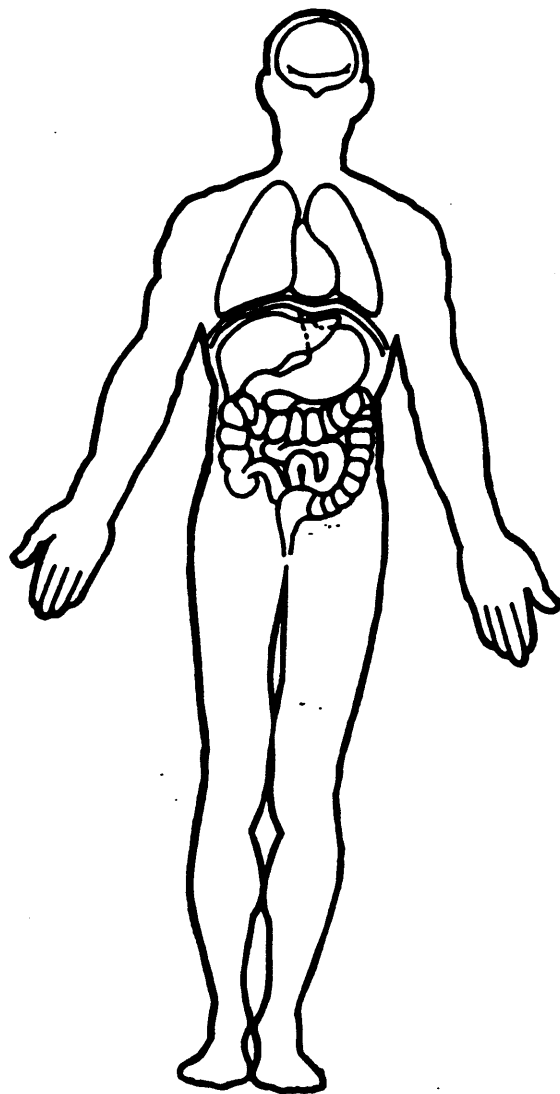
## OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Police Report

## OFFICIAL INJURY DATA —INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





## OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

\_\_\_ No

\_\_\_ Yes

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Blood Alcohol Level  
(mg/dl)

BAL = \_\_\_

Glasgow Coma  
Scale Score

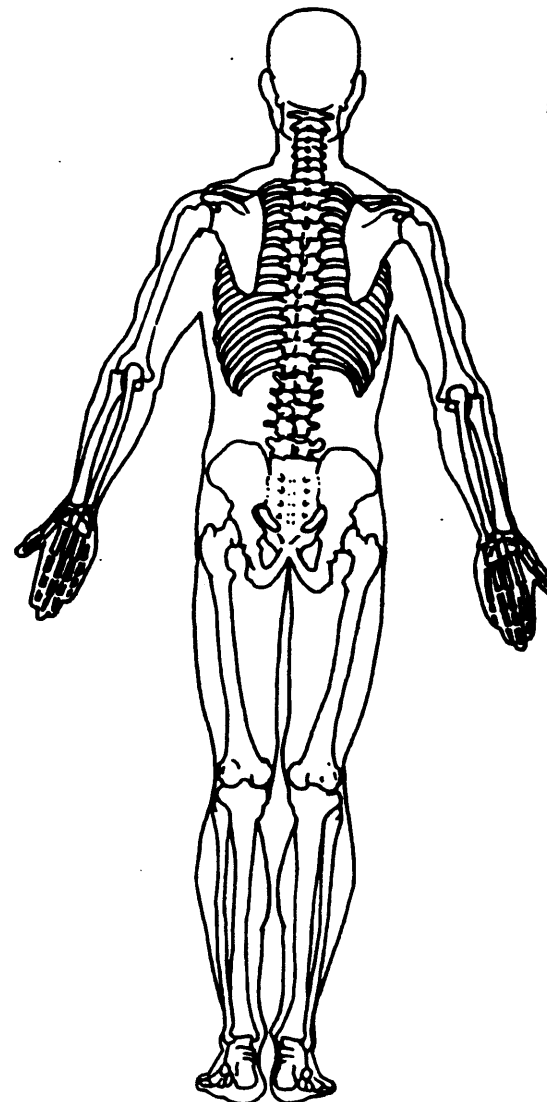
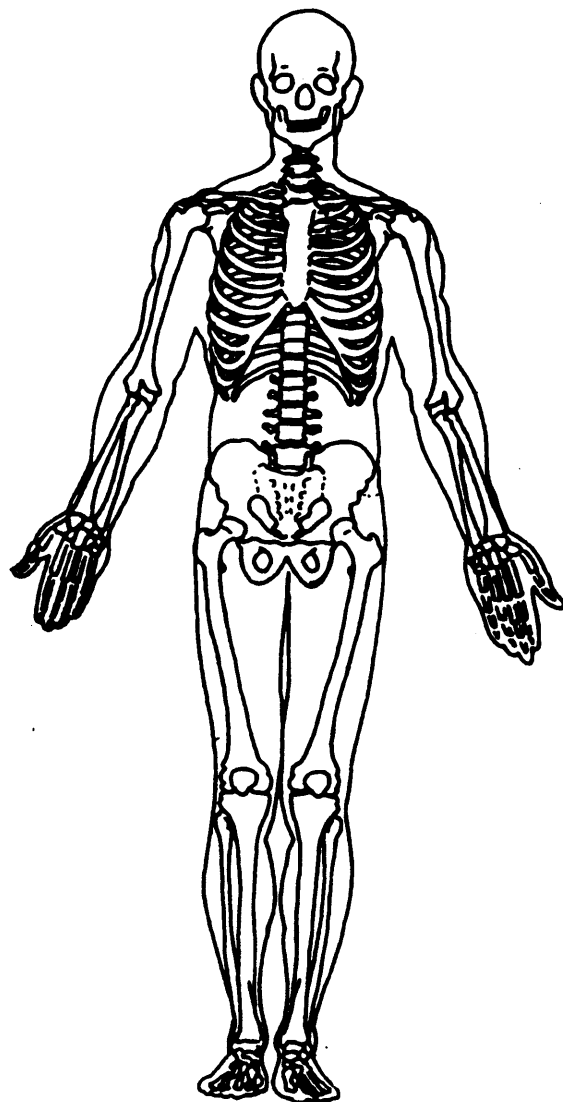
GCSS = \_\_\_

Units of Blood  
Given

Units = \_\_\_

Arterial Blood Gases

pH = \_\_\_

PO<sub>2</sub> = \_\_\_PCO<sub>2</sub> \_\_\_HCO<sub>3</sub> \_\_\_



# GENERAL VEHICLE FORM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

## VEHICLE IDENTIFICATION

4. Vehicle Model Year

Code the last two digits of the model year  
(99) Unknown

5. Vehicle Make (specify):

PONTIAC  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(99) Unknown

6. Vehicle Model (specify):

GRAND AM  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(999) Unknown

7. Body Type

Note: Applicable codes may be found on  
the back of this page.

8. Vehicle Identification Number

1 6 2 N E 1 4 3 6 P M X X X X X X  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Left justify; Slash zeros and letter Z (0 and Z)

No VIN—Code all zeros

Unknown—Code all nines

9. Vehicle Special Use (This Trip)

(0) No special use

(1) Taxi

(2) Vehicle used as school bus

(3) Vehicle used as other bus

(4) Military

(5) Police

(6) Ambulance

(7) Fire truck or car

(8) Other (specify):

(9) Unknown

## OFFICIAL RECORDS

10. Police Reported Vehicle Disposition

(0) Not towed due to vehicle damage

(1) Towed due to vehicle damage

(9) Unknown

11. Police Reported Travel Speed

Code to the nearest kmph (NOTE: 000 means  
less than 0.5 kmph)

(160) 159.5 kmph and above

(999) Unknown

\_\_\_\_ mph X 1.6093 = \_\_\_\_ kmph

12. Speed Limit

(000) No statutory limit

Code posted or statutory speed limit in kmph

(999) Unknown

55 mph X 1.6093 = 88.9 kmph

13. Police Reported Alcohol Presence For Driver

(0) No alcohol present

(1) Yes alcohol present

(7) Not reported

(8) No driver present

(9) Unknown

14. Alcohol Test Result For Driver

Code actual value (decimal implied  
before first digit—0.xx)

(95) Test refused

(96) None given

(97) AC test performed, results unknown

(98) No driver present

(99) Unknown

Source: \_\_\_\_\_

15. Police Reported Other Drug Presence For Driver

(0) No other drug(s) present

(1) Yes other drug(s) present

(7) Not reported

(8) No driver present

(9) Unknown

16. Other Drug Specimen Test Result For Driver

(0) No specimen test given

(1) Drug(s) not found in specimen

(2) Drug(s) found in specimen, (specify):

(3) Specimen test given, results unknown or not  
obtained

(8) No driver present

(9) Unknown if specimen test given

17. Driver's Zip Code

(00001) Driver not a resident of U.S. or territories

Code actual 5-digit zip code

(99998) No driver present

(99999) Unknown

18. Driver's Race/Ethnic Origin

(1) White (non-Hispanic)

(2) Black (non-Hispanic)

(3) White (Hispanic)

(4) Black (Hispanic)

(5) American Indian, Eskimo or Aleut

(6) Asian or Pacific Islander

(7) Other (specify):

(8) No driver present

(9) Unknown

# CODES FOR BODY TYPE

BEST AVAILABLE

## CDS APPLICABLE VEHICLES

### Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): \_\_\_\_\_

- (09) Unknown automobile type

### Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

### Utility Vehicles ( $\leq 4,536$ kgs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Passport, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Hummer, Landcruiser, Rover, Scout, Yukon)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

### Van Based Light Trucks ( $\leq 4,536$ kgs GVWR)

- (20) Minivan (Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Vista, Aerostar, Windstar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Expo Wagon, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ( $\leq 4,536$  kgs GVWR)
- (23) Van based motorhome ( $\leq 4,536$  kgs GVWR)
- (24) Van based school bus ( $\leq 4,536$  kgs GVWR)
- (25) Van based other bus ( $\leq 4,536$  kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): \_\_\_\_\_
- (29) Unknown van type

### Light Conventional Trucks (Pickup style cab, $\leq 4,536$ kgs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500, T100)
- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

### Other Light Trucks ( $\leq 4,536$ kgs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

## OTHER VEHICLES

### Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): \_\_\_\_\_
- (59) Unknown bus type

### Medium/Heavy Trucks ( $> 4,536$ kgs GVWR)

- (60) Step van ( $> 4,536$  kgs GVWR)
- (61) Single unit straight truck ( $4,536$  kgs  $<$  GVWR  $\leq 8,845$  kgs)
- (62) Single unit straight truck ( $8,845$  kgs  $<$  GVWR  $\leq 11,793$  kgs)
- (63) Single unit straight truck ( $> 11,793$  kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

### Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): \_\_\_\_\_
- (89) Unknown motored cycle type

### Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type



## PRECRASH ENVIRONMENTAL DATA

19. Relation To Interchange Or Junction  $\phi$ 

- (0) Non-interchange area and non-junction  
(1) Interchange area related

*Non-Interchange junctions*

- (2) Intersection related  
(3) Driveway, alley access related  
(4) Other junction (specify) \_\_\_\_\_

- (5) \_\_\_\_\_  
Unknown type of junction

- (9) Unknown

20. Trafficway Flow  $\phi$ 

- (0) Not physically divided (two way traffic)  
(1) Divided trafficway-median strip without positive barrier  
(2) Divided trafficway-median strip with positive barrier  
(3) One way traffic  
(9) Unknown

21. Number Of Travel Lanes 2

- (1) One  
(2) Two  
(3) Three  
(4) Four  
(5) Five  
(6) Six  
(7) Seven or more  
(9) Unknown

22. Roadway Alignment 3

- (1) Straight  
(2) Curve right  
(3) Curve left  
(9) Unknown

23. Roadway Profile 1

- (1) Level  
(2) Uphill grade (> 2%)  
(3) Hill crest  
(4) Downhill grade (> 2%)  
(5) Sag  
(9) Unknown

24. Roadway Surface Type 2

- (1) Concrete  
(2) Bituminous (asphalt)  
(3) Brick or block  
(4) Slag, gravel, or stone  
(5) Dirt  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

25. Roadway Surface Condition 2

- (1) Dry  
(2) Wet  
(3) Snow or slush  
(4) Ice  
(5) Sand, dirt, or oil  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

26. Light Conditions 1

- (1) Daylight  
(2) Dark  
(3) Dark, but lighted  
(4) Dawn  
(5) Dusk  
(9) Unknown

27. Atmospheric Conditions 1

- (0) No adverse atmospheric-related driving conditions  
(1) Rain  
(2) Sleet/hail  
(3) Snow  
(4) Fog  
(5) Rain and fog  
(6) Sleet and fog  
(7) Other (e.g., smog, smoke, blowing sand or dust, etc.) (specify): \_\_\_\_\_  
(9) Unknown

28. Traffic Control Device  $\phi$ 

- (0) No traffic control(s)  
(1) Traffic control signal (not RR crossing)

*Regulatory*

- (2) Stop sign  
(3) Yield sign  
(4) School zone sign  
(5) Other regulatory sign (specify): \_\_\_\_\_

- (6) Warning sign (not RR crossing)  
(7) Unknown sign  
(8) Miscellaneous/other controls including RR controls (specify): \_\_\_\_\_

- (9) Unknown

29. Traffic Control Device Functioning  $\phi$ 

- (0) No traffic control device  
(1) Traffic control device not functioning (specify): \_\_\_\_\_  
(2) Traffic control device functioning properly  
(9) Unknown

**PRECRASH DRIVER RELATED DATA**

30. Driver's Distraction/Inattention To Driving 9 9  
(Prior To Recognition Of Critical Event)  
(00) No driver present  
(01) Attentive or not distracted  
(02) Looked but did not see  
*Distractions*  
(03) By other occupant(s), (specify): \_\_\_\_\_  
(04) By moving object in vehicle (specify): \_\_\_\_\_  
(05) While talking or listening to cellular phone (specify location and type of phone): \_\_\_\_\_  
(06) While dialing cellular phone (specify location and type of phone): \_\_\_\_\_  
(07) While adjusting climate controls  
(08) While adjusting radio, cassette, CD (specify): \_\_\_\_\_  
(09) While using other device/controls integral to vehicle (specify): \_\_\_\_\_  
(10) While using or reaching for device/object brought into vehicle (specify): \_\_\_\_\_  
(11) Sleepy or fell asleep  
(12) Distracted by outside person, object, or event (specify): \_\_\_\_\_  
(13) Eating or drinking  
(14) Smoking related  
(97) Distracted/inattentive, details unknown  
(98) Other, distraction (specify): \_\_\_\_\_  
(99) Unknown
31. Pre-Event Movement (Prior to Recognition of Critical Event) 1 4  
(00) No driver present  
(01) Going straight  
(02) Decelerating in traffic lane  
(03) Accelerating in traffic lane  
(04) Starting in traffic lane  
(05) Stopped in traffic lane  
(06) Passing or overtaking another vehicle  
(07) Disabled or parked in travel lane  
(08) Leaving a parking position  
(09) Entering a parking position  
(10) Turning right  
(11) Turning left  
(12) Making a U-turn  
(13) Backing up (other than for parking position)  
(14) Negotiating a curve  
(15) Changing lanes  
(16) Merging  
(17) Successful avoidance maneuver to a previous critical event  
(97) Other (specify): \_\_\_\_\_  
(99) Unknown
32. Critical Precrash Event 1 6  
**THIS VEHICLE LOSS OF CONTROL DUE TO:**  
(01) Blow out or flat tire  
(02) Stalled engine  
(03) Disabling vehicle failure (e.g., wheel fell off) (specify): \_\_\_\_\_  
(04) Non-disabling vehicle problem (e.g., hood flew up) (specify): \_\_\_\_\_  
(05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): \_\_\_\_\_  
(06) Traveling too fast for conditions  
(08) Other cause of control loss (specify): \_\_\_\_\_  
(09) Unknown cause of control loss

**THIS VEHICLE TRAVELLING**

- (10) Over the lane line on left side of travel lane  
(11) Over the lane line on right side of travel lane  
(12) Off the edge of the road on the left side  
(13) Off the edge of the road on the right side  
(14) End departure  
(15) Turning left at intersection  
(16) Turning right at intersection  
(17) Crossing over (passing through) intersection  
(18) This vehicle decelerating  
(19) Unknown travel direction

**OTHER MOTOR VEHICLE IN LANE**

- (50) Other vehicle stopped  
(51) Traveling in same direction with lower steady speed  
(52) Traveling in same direction while decelerating  
(53) Traveling in same direction with higher speed  
(54) Traveling in opposite direction  
(55) In crossover  
(56) Backing  
(59) Unknown travel direction of other motor vehicle in lane

**OTHER MOTOR VEHICLE ENCROACHING INTO LANE**

- (60) From adjacent lane (same direction)—over left lane line  
(61) From adjacent lane (same direction)—over right lane line  
(62) From opposite direction—over left lane line  
(63) From opposite direction—over right lane line  
(64) From parking lane  
(65) From crossing street, turning into same direction  
(66) From crossing street, across path  
(67) From crossing street, turning into opposite direction  
(68) From crossing street, intended path not known  
(70) From driveway, turning into same direction  
(71) From driveway, across path  
(72) From driveway, turning into opposite direction  
(73) From driveway, intended path not known  
(74) From entrance to limited access highway  
(78) Encroachment by other vehicle—details unknown

**PEDESTRIAN, PEDALCYCLIST, OR OTHER NONMOTORIST**

- (80) Pedestrian in roadway  
(81) Pedestrian approaching roadway  
(82) Pedestrian—unknown location  
(83) Pedalcyclist or other nonmotorist in roadway

(specify): \_\_\_\_\_

- (84) Pedalcyclist or other nonmotorist approaching roadway, (specify): \_\_\_\_\_

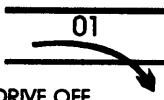
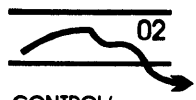
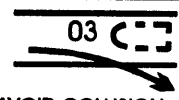
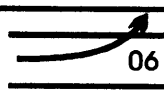

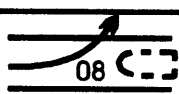

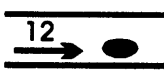
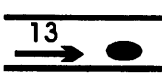
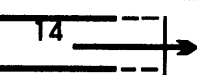
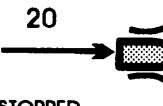
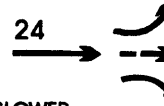
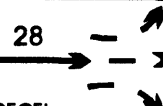
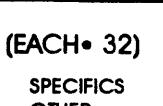
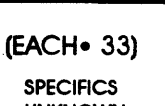


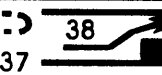
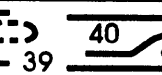
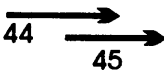




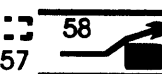
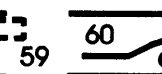

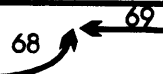

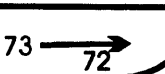

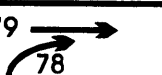
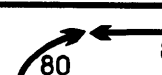

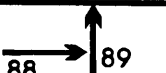
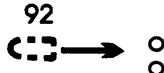
- (85) Pedalcyclist or other nonmotorist—unknown location

(specify): \_\_\_\_\_

**OBJECT OR ANIMAL**

- (87) Animal in roadway  
(88) Animal approaching roadway  
(89) Animal—unknown location  
(90) Object in roadway  
(91) Object approaching roadway  
(92) Object—unknown location  
(98) Other critical precrash event (specify): \_\_\_\_\_

- (99) Unknown

Category	Configuration	ACCIDENT TYPES (includes Intent)					
I Single driver	A. Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH. PED. ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN	
	B. Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH. PED. ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN	
	C. Forward Impact	 11 PARKED VEHICLE	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER	16 SPECIFICS UNKNOWN
II Same Trafficway Same Direction	D. Rear-End	 20 STOPPED 21,22,23	 24 SLOWER 25,26,27	 28 DECEL 29,30,31	 (EACH • 32) SPECIFICS OTHER	 (EACH • 33) SPECIFICS UNKNOWN	
	E. Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEHICLE	 40 AVOID COLLISION WITH OBJECT	(EACH • 42) SPECIFICS OTHER	(EACH • 43) SPECIFICS UNKNOWN
	F. Sideswipe/ Angle	 44 45	 46 45 47	(EACH • 48) SPECIFICS OTHER	(EACH • 49) SPECIFICS UNKNOWN		
III Same Trafficway Opposite Direction	G. Head-On	 50 LATERAL MOVE	(EACH • 52) SPECIFICS OTHER	(EACH • 53) SPECIFICS UNKNOWN			
	H. Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEHICLE	 60 AVOID COLLISION WITH OBJECT	(EACH • 62) SPECIFICS OTHER	(EACH • 63) SPECIFICS UNKNOWN
	I. Sideswipe/ Angle	 64 LATERAL MOVE	(EACH • 66) SPECIFICS OTHER	(EACH • 67) SPECIFICS UNKNOWN			
IV Change Trafficway Vehicle Turning	J. Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS	 71 INITIAL SAME DIRECTION	 73 72	(EACH • 74) SPECIFICS OTHER	(EACH • 75) SPECIFICS UNKNOWN	
	K. Turn Into Path	 77 76 TURN INTO SAME DIRECTION	 79 78 TURN INTO OPPOSITE DIRECTION	 81 80 TURN INTO OPPOSITE DIRECTION	(EACH • 84) SPECIFICS OTHER	(EACH • 85) SPECIFICS UNKNOWN	
V Intersecting Paths (Vehicle Damage)	L. Straight Paths	 86 87	 88 89	(EACH • 90) SPECIFICS OTHER	(EACH • 91) SPECIFICS UNKNOWN		
VI. Miscellaneous	M. Backing Etc.	 92 BACKING VEHICLE	93 OTHER VEHICLE OR OBJECT	98 Other Accident Type 99 Unknown Accident Type 00 No impact			



## 33. Attempted Avoidance Maneuver

99

- (00) No driver present
- (01) No avoidance maneuver
- (02) Braking (no lockup)
- (03) Braking (lockup)
- (04) Braking (lockup unknown)
- (05) Releasing brakes
- (06) Steering left
- (07) Steering right
- (08) Braking and steering left
- (09) Braking and steering right
- (10) Accelerating
- (11) Accelerating and steering left
- (12) Accelerating and steering right
- (98) Other action (specify):

\_\_\_\_\_  
(99) Unknown

## 34. Pre-Impact Stability

1

- (0) No driver present
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify):

\_\_\_\_\_  
(9) Precrash stability unknown

## 35. Pre-Impact Location

2

- (0) No driver present
- (1) Stayed in original travel lane
- (2) Stayed on roadway but left original travel lane
- (3) Stayed on roadway, not known if left original travel lane
- (4) Departed roadway
- (5) Remained off roadway
- (6) Returned to roadway
- (7) Entered roadway
- (9) Unknown

## 36. Accident Type

64

(Note: Applicable codes on back of this page)

(00) No impact

Code the number of the diagram that best describes the accident circumstance

(98) Other accident type (specify):

\_\_\_\_\_  
(99) Unknown

**STOP HERE IF GV07 DOES NOT EQUAL 01 - 49**

## OCCUPANT RELATED

37. Driver Presence in Vehicle 1  
(0) Driver not present  
(1) Driver present  
(9) Unknown
38. Number of Occupants This Vehicle 61  
(00-96) Code actual number of occupants for this vehicle  
(97) 97 or more  
(99) Unknown
39. Number of Occupant Forms Submitted 1

## AIR BAG RELATED

40. Is this an AOPS Vehicle? φ  
(0) No (includes unknown)  
(1) Yes - researcher determined  
(2) VIN determined air bag system  
(3) VIN determined automatic (passive) belts  
(4) VIN determined air bag and automatic (passive) belts
41. Air Bag(s) Deployment, First Seat Frontal φ  
(0) Not equipped or not available  
(1) No air bags deployed  
*Single Air Bag Vehicle*  
(2) Driver air bag deployed  
(3) Driver air bag, unknown if deployed  
*Multiple Air Bag Vehicle*  
(4) Driver side only deployed  
(5) Passenger side only deployed  
(6) Driver and passenger side deployed  
(7) Driver and passenger side unknown if deployed  
(8) Air bag(s) deployed, details unknown  
(9) Unknown
42. Air Bag(s) Deployment, Other Than First Seat Frontal φ  
(0) Not equipped with an "other" air bag  
(1) Deployed during accident (as a result of impact)  
(2) Deployed inadvertently just prior to accident  
(3) Deployed, details unknown  
(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
(5) Unknown if deployed  
(7) Nondeployed  
(9) Unknown

Specify type of "other" air bag present: \_\_\_\_\_

## VEHICLE WEIGHT ITEMS

43. Vehicle Curb Weight 1.240  
Code weight to nearest 10 kilograms.  
(045) Less than 454 kilograms  
(612) 6,124 kilograms or more  
(999) Unknown  
\_\_\_\_\_ lbs X .4536 = 1.237 kgs  
Source: \_\_\_\_\_

44. Vehicle Cargo Weight 9990  
Code weight to nearest 10 kilograms.  
(000) Less than 5 kilograms  
(454) 4,536 kilograms or more  
(999) Unknown  
\_\_\_\_\_ lbs X .4536 = \_\_\_\_\_ kgs

Source: \_\_\_\_\_

## ROLLOVER DATA

45. Rollover φ φ  
(00) No rollover (no overturning)  
*Rollover (primarily about the longitudinal axis)*  
(01-16) Code the number of quarter turns  
(17) Rollover, 17 or more quarter turns (specify): \_\_\_\_\_  
(98) Rollover--end-over-end (i.e., primarily about the lateral axis)  
(99) Rollover (overturn), details unknown
46. Rollover Initiation Type φ φ  
(00) No rollover  
(01) Trip-over  
(02) Flip-over  
(03) Turn-over  
(04) Climb-over  
(05) Fall-over  
(06) Bounce-over  
(07) Collision with another vehicle  
(08) Other rollover initiation type specify): \_\_\_\_\_  
(98) Rollover--end-over-end  
(99) Unknown rollover initiation type
47. Location of Rollover Initiation φ  
(0) No rollover  
(1) On roadway  
(2) On shoulder--paved  
(3) On shoulder--unpaved  
(4) On roadside or divided trafficway median  
(8) Rollover--end-over-end  
(9) Unknown
48. Rollover Initiation Object Contacted φ φ  
(Note: Applicable codes on back of page)
49. Location on Vehicle Where Initial Principal Tripping Force Is Applied φ  
(0) No rollover  
(1) Wheels/tires  
(2) Side plane  
(3) End plane  
(4) Undercarriage  
(5) Other location on vehicle (specify): \_\_\_\_\_  
(6) Non-contact rollover forces (specify): \_\_\_\_\_  
(8) Rollover--end-over-end  
(9) Unknown
50. Direction of Initial Roll φ  
(0) No rollover  
(1) Roll right - primarily about the longitudinal axis  
(2) Roll left - primarily about the longitudinal axis  
(8) Rollover--end-over-end  
(9) Unknown roll direction

## CODES FOR ROLLOVER INITIATION OBJECT CONTACTED

- (00) No rollover
- (01-30) — Vehicle Number

### Noncollision

- (31) Turn-over — fall-over
- (32) No rollover impact initiation (end-over-end)
- (34) Jackknife

### Collision With Fixed Object

- (41) Tree ( $\leq 10$  cm in diameter)
- (42) Tree ( $> 10$  cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment

- (45) Breakaway pole or post (any diameter)

### Nonbreakaway Pole or Post

- (50) Pole or post ( $\leq 10$  cm in diameter)
- (51) Pole or post ( $> 10$  cm but  $\leq 30$  cm in diameter)
- (52) Pole or post ( $> 30$  cm in diameter)
- (53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail)  
(specify): \_\_\_\_\_

- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): \_\_\_\_\_

- (69) Unknown fixed object \_\_\_\_\_

### Collision with Nonfixed Object

- (70) Passenger car, light truck, van, or other vehicle not in-transport
- (71) Medium/heavy truck or bus not in-transport
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (79) Object fell from vehicle in-transport
- (88) Other nonfixed object (specify): \_\_\_\_\_

- (89) Unknown nonfixed object \_\_\_\_\_

- (98) Other event (specify): \_\_\_\_\_

- (99) Unknown event or object \_\_\_\_\_

## OVERRIDE/UNDERRIDE (THIS VEHICLE)

51. Front Override/Underride (this Vehicle) 052. Rear Override/Underride (this Vehicle) 0

- (0) No override/underride, or not an end-to-end impact between two CDS applicable vehicles, and no medium/heavy truck or bus underride

*Override (see specific CDC)**[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]*

- (1) 1st CDC  
(2) 2nd CDC  
(3) Other not automated CDC (specify):  
\_\_\_\_\_

*Underride (see specific CDC)**[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]*

- (4) 1st CDC  
(5) 2nd CDC  
(6) Other not automated CDC (specify):  
\_\_\_\_\_

- (7) Medium/heavy truck or bus override (of any configuration)  
(9) Unknown

## HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value  
(996) Non-horizontal impact  
(997) Noncollision  
(998) Impact with object  
(999) Unknown

53. Heading Angle For This Vehicle 21054. Heading Angle For Other Vehicle 090

## RECONSTRUCTION DATA

55. Towed Trailing Unit 0

- (0) No towed unit  
(1) Yes—towed trailing unit  
(9) Unknown

56. Documentation of Trajectory Data for This Vehicle 0

- (0) No  
(1) Yes

57. Post Collision Condition of Tree or Pole (For Highest Delta V) 0

- (0) Not collision (for highest delta V) with tree or pole  
(1) Not damaged  
(2) Cracked/sheared  
(3) Tilted < 45 degrees  
(4) Tilted ≥ 45 degrees  
(5) Uprooted tree  
(6) Separated pole from base  
(7) Pole replaced  
(8) Other (specify):  
\_\_\_\_\_

(9) Unknown

## ACCIDENT RECONSTRUCTION PROGRAMS HIGHEST DELTA V

58. Basis for Total (Resultant) Delta V (highest) 03

(00) No vehicle inspection

*Delta V Calculated*

- (01) Reconstruction program-damage only routine  
(02) Reconstruction program-damage and trajectory routine  
(03) Missing vehicle algorithm

*Delta V Not Calculated*

- (04) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

*All vehicles within scope (CDC applicable) of reconstruction program but one of the collision conditions is beyond the scope of the reconstruction program or other acceptable reconstruction technique, regardless of adequacy of damage data.*

- (05) Rollover  
(06) Other non-horizontal forces  
(07) Sideswipe type damage  
(08) Severe override  
(09) Yielding object  
(10) Overlapping damage  
(11) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available, (specify):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(98) Other, (specify): \_\_\_\_\_  
\_\_\_\_\_



## COMPUTER GENERATED CRASH SEVERITY

59. Total Delta V

Highest

4646.2 Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)  
 (160) 159.5 kmph and above  
 (999) Unknown

60. Longitudinal Component of Delta V

Highest

-35.4-35.4 Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means greater than  
 -0.5 kmph and less than +0.5 kmph)  
 (± 160) ± 159.5 kmph and above  
 (999) Unknown

61. Lateral Component of Delta V

Highest

-29.7-29.7 Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means greater than -0.5 kmph and  
 less than +0.5 kmph)  
 (± 160) ± 159.5 kmph and above  
 (999) Unknown

62. Energy Absorption

Highest

186284186284 Nearest 100 joules (highest)

\_\_\_\_ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)  
 (9997) 999,650 joules or more  
 (9999) Unknown

63. Impact Speed

Highest

998

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means  
 less than 0.5 kmph)  
 (160) 159.5 kmph and above  
 (998) Trajectory algorithm not run  
 (999) Unknown

## DELTA V CONFIDENCE LEVEL

64. Confidence In Reconstruction Program Results (For Highest Delta V)

1

- (0) No reconstruction  
 (1) Collision fits model — results appear reasonable  
 (2) Collision fits model — results appear high  
 (3) Collision fits model — results appear low  
 (4) Borderline reconstruction — results appear reasonable

## OTHER SPEED ESTIMATE

65. Barrier Equivalent Speed

Highest

54.954.9 Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means  
 less than 0.5 kmph)  
 (160) 159.5 kmph and above  
 (999) Unknown

ESTIMATED DELTA V	INSPECTION TYPE
<p>66. Estimated Highest Delta V (Researcher Determined) <span style="float: right;">Φ</span></p> <p>(0) Reconstruction Delta V coded</p> <p><i>Estimated Delta V</i></p> <p>(1) Less than 10 kmph</p> <p>(2) ≥ 10 kmph but &lt; 25 kmph</p> <p>(3) ≥ 25 kmph but &lt; 40 kmph</p> <p>(4) ≥ 40 kmph but &lt; 55 kmph</p> <p>(5) ≥ 55 kmph</p> <p><i>Other estimates of damage severity</i></p> <p>(6) Minor</p> <p>(7) Moderate</p> <p>(8) Severe</p> <p>(9) Unknown</p>	<p>67. Type of Vehicle Inspection <span style="float: right;">Φ</span></p> <p>(0) No inspection</p> <p>(1) Vehicle fully repaired-no damage evident</p> <p>(2) Partial inspection (specify): _____</p> <p>(3) Complete inspection</p>
	<p><b>DELTA V EVENT NUMBER</b></p> <p>68. Delta V Event Number <span style="float: right;">L</span></p> <p>_____ Code the accident event sequence number that resulted in the Delta V that has been coded above for this vehicle</p> <p>(99) Unknown</p>

\*\*\* IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV67 = 0), \*\*\*

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

\*\*\* IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE \*\*\*

THE EXTERIOR VEHICLE, INTERIOR VEHICLE,  
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.



# OCCUPANT ASSESSMENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

## OCCUPANT'S SEATING

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

4. Occupant Number

## OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height

Code actual height to the nearest  
centimeter.

(999) Unknown

73 inches X 2.54 = \_\_\_\_\_ centimeters

8. Occupant's Weight

Code actual weight to the nearest  
kilogram.

(999) Unknown

160 pounds X .4536 = \_\_\_\_\_ kilograms

9. Occupant's Role

(1) Driver

(2) Passenger

(9) Unknown

10. Occupant's Seat Position

*Front Seat*

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify): \_\_\_\_\_

(15) On or in the lap of another occupant

*Second Seat*

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify): \_\_\_\_\_

(25) On or in the lap of another occupant

*Third Seat*

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify): \_\_\_\_\_

(35) On or in the lap of another occupant

*Fourth Seat*

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify): \_\_\_\_\_

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify): \_\_\_\_\_

(99) Unknown

11. Occupant's Posture

(0) Normal posture

*Abnormal posture*

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another  
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front  
of seat

(8) Other abnormal posture (specify): \_\_\_\_\_

(9) Unknown

BEST AVAILABLE

## EJECTION/ENTRAPMENT

12. Ejection  $\phi$ 

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area  $\phi$ 

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

14. Ejection Medium  $\phi$ 

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_
- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_
- (9) Unknown

15. Medium Status (Immediately Prior To Impact)  $\phi$ 

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment  $\phi$ 

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.  
(specify): \_\_\_\_\_
- (9) Unknown

17. Occupant Mobility 9

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or not oriented to time or place
- (2) Removed from vehicle due to perceived serious injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (8) Removed from vehicle for other reasons  
(specify): \_\_\_\_\_
- (9) Unknown



## BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability  $\phi$ 

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

*Integral Belt Partially Destroyed*

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

(9) Unknown

19. Manual (Active) Belt System Use  $\phi \phi$ 

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify):

(02) Shoulder belt

(03) Lap belt

(04) Lap and shoulder belt

(05) Belt used—type unknown

(08) Other belt used (specify):

(12) Shoulder belt used with child safety seat

(13) Lap belt used with child safety seat

(14) Lap and shoulder belt used with child safety seat

(15) Belt used with child safety seat—type unknown

(18) Other belt used with child safety seat (specify):

(99) Unknown if belt used

20. Proper Use of Manual (Active) Belts  $\phi$ 

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

*Belt Used Improperly*

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of manual belt system (specify):

(9) Unknown

21. Manual (Active) Belt Failure Modes During Accident  $\phi$ 

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

(6) Broken retractor

(7) Combination of above (specify):

(8) Other manual belt failure (specify):

(9) Unknown

22. Manual Shoulder Belt Upper Anchorage Adjustment  $\phi$ 

- (0) No manual shoulder belt
- (1) No upper anchorage adjustment for manual shoulder belt

*Adjustable shoulder Belt Upper Anchorage*

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

23. Automatic (Passive) Belt System Availability/Function 2

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

*Non-functional*

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

24. Automatic (Passive) Belt System Use 1

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
- (3) Automatic belt use unknown
- (9) Unknown

25. Automatic (Passive) Belt System Type 1

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

26. Proper Use of Automatic (Passive) Belt System 1

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

*Automatic Belt Used Improperly*

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or

automatic shoulder belt used improperly with child safety seat (specify):

- (8) Other improper use of automatic belt system (specify):
- (9) Unknown

27. Automatic (Passive) Belt Failure Modes During Accident 1

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

(6) Broken retractor

(7) Combination of above (specify):

(8) Other automatic belt failure (specify):

(9) Unknown

## POLICE REPORTED RESTRAINT USE

## AIR BAG SYSTEM FUNCTION

28. Police Reported Belt Use 4

- (0) None used  
 (1) Police did not indicate belt use  
 (2) Shoulder belt  
 (3) Lap belt  
 (4) Lap and shoulder belt  
 (5) Belt used, type not specified  
 (6) Child safety seat  
 (7) Automatic belt  
 (8) Other type belt, (specify):

(9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function φ

- (0) No air bag available  
 (1) Police did not indicate air bag availability/function  
 (2) Deployed  
 (3) Not deployed  
 (4) Unknown if deployed  
 (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- ☐ Vehicle inspection  
☒ Official injury data  
☐ Driver/occupant interview  
☒ Other (specify): photos

☐ Unknown if belt used

30. Frontal Air Bag System Availability/Function (This Occupant Position) φ

- (0) Not equipped/not available  
 (1) Air bag

*Non-functional*

- (2) Air bag disconnected (specify):  
 (3) Air bag not reinstalled  
 (9) Unknown

31. Frontal Air Bag System Deployment (This Occupant Position) φ

- (0) Not equipped/not available  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position) φ

- (0) Not equipped/not available  
 (1) Air bag

*Non-functional*

- (2) Air bag disconnected (specify):  
 (3) Air bag not reinstalled  
 (9) Unknown

*Specify type of "other" air bag present:*

33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) φ

- (0) Not equipped with an "other" air bag  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

34. Are There Indications of Air Bag System Failure? (This Occupant Position) φ

- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify):

(9) Unknown

## FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)?  $\phi$ 

- (0) Not equipped/not available  
(1) No previous accidents

Yes

- (2) Previous accident(s) without deployment(s)  
(3) One previous accident with deployment  
(4) More than one previous accident with at least one deployment  
(8) Previous accidents, unknown deployment status  
(9) Unknown

36. Type of Air Bag  $\phi$ 

- (0) Not equipped/not available  
(1) Original manufacturer installed system  
(2) Retrofitted air bag  
(3) Replacement air bag  
(8) Unknown type of air bag  
(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System?  $\phi$ 

- (0) Not equipped/not available  
(1) No prior maintenance  
(2) Yes, prior maintenance (specify):  
(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number  $\phi \phi$ 

- (00) Not equipped/not available  
Code the accident event sequence number that initiated the air bag deployment  
(96) Deployed, unknown event  
(97) Not deployed  
(98) Unknown if deployed  
(99) Unknown

39. CDC For Air Bag Deployment Impact  $\phi$ 

- (0) Not equipped/not available  
(1) Highest delta V  
(2) Second highest delta V  
(3) Other non-coded delta V (specify):  
(6) Deployed, unknown event  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

40. Longitudinal Component of Delta V For Air Bag Deployment Impact  $\begin{matrix} + \\ - \end{matrix} \phi \phi \phi$ 

(\_ 000) Not equipped/not available

Code the value of the delta V for the impact that initiated the air bag deployment

- (\_ 996) Deployment, unknown longitudinal Delta V  
(\_ 997) Not deployed  
(\_ 998) Unknown if deployed  
(\_ 999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points?  $\phi$ 

- (0) Not equipped/not available  
(1) No  
(2) Yes  
(3) Deployed, unknown if flap(s) opened at designated tear points  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged?  $\phi$ 

- (0) Not equipped/not available  
(1) No  
(2) Yes (specify):  
(3) Deployed, unknown if air bag module cover flap(s) damaged  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

43. Was There Damage To The Air Bag?  $\phi \phi$ 

- (00) Not equipped/not available  
(01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured  
(03) Cut  
(04) Torn  
(05) Holed  
(06) Burned  
(07) Abraded  
(88) Other damage (specify):

- (95) Damaged, details unknown  
(96) Deployed, unknown if damaged  
(97) Not deployed  
(98) Unknown if deployed  
(99) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM  
EVALUATION *continued*

44. Source of Air Bag Damage  $\phi$   $\phi$   
 (00) Not equipped/not available  
 (01) Not damaged  
 (02) Object worn by occupant, (specify):  
 (03) Object carried by occupant, (specify):  
 (04) Adaptive/assistive controls, (specify):  
 (05) Fire in vehicle  
 (06) Thermal burns  
 (07) Rescue or emergency efforts  
 (88) Other damage source (specify):  
 (95) Damaged, unknown source  
 (96) Deployed, unknown if damaged  
 (97) Not deployed  
 (98) Unknown if deployed  
 (99) Unknown
45. Was The Air Bag Tethered?  $\phi$   
 (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of tether straps):  
 (3) Deployed, unknown if tethered  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
46. Did The Air Bag Have Vent Ports?  $\phi$   
 (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of vent ports):  
 (3) Deployed, unknown if vent ports present  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant?  $\phi$   
 (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify):  
 (3) Deployed, unknown if other occupant contact to air bag  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
48. Was This Occupant Wearing Eye-wear?  $\phi$   
 (0) Not air bag equipped/air bag not available  
 (1) No  
 (2) Eyeglasses/sunglasses  
 (3) Contact lenses  
 (4) Deployed, unknown if eyewear worn  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown

## HEAD RESTRAINT AND SEAT EVALUATION

49. Head Restraint Type/Damage by Occupant at This Occupant Position 3  
 (0) No head restraints  
 (1) Integral—no damage  
 (2) Integral—damaged during accident  
 (3) Adjustable—no damage  
 (4) Adjustable—damaged during accident  
 (5) Add-on—no damage  
 (6) Add-on—damaged during accident  
 (8) Other (specify):  
 (9) Unknown
50. Seat Type (this Occupant Position)  $\phi$  2  
 (00) Occupant not seated or no seat  
 (01) Bucket  
 (02) Bucket with folding back  
 (03) Bench  
 (04) Bench with separate back cushions  
 (05) Bench with folding back(s)  
 (06) Split bench with separate back cushions  
 (07) Split bench with folding back(s)  
 (08) Pedestal (i.e., column supported)  
 (09) Box mounted seat (i.e., van type)  
 (10) Other seat type (specify):  
 (99) Unknown
51. Seat Orientation (this Occupant Position) 1  
 (0) Occupant not seated or no seat  
 (1) Forward facing seat  
 (2) Rear facing seat  
 (3) Side facing seat (inward)  
 (4) Side facing seat (outward)  
 (8) Other (specify):  
 (9) Unknown
52. Seat Track Adjusted Position Prior To Impact 9  
 (0) Occupant not seated or no seat  
 (1) Non-adjustable seat track  
*Adjustable Seat Track*  
 (2) Seat at forward most track position  
 (3) Seat between forward most and middle track positions  
 (4) Seat at middle track position  
 (5) Seat between middle and rear most track positions  
 (6) Seat at rear most track position  
 (9) Unknown

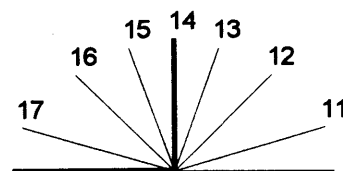


HEAD RESTRAINT AND SEAT EVALUATION *continued*53. Seat Back Incline Prior and Post Impact 99

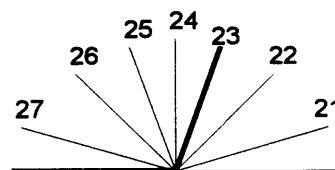
- (00) Occupant not seated or no seat  
 (01) Not adjustable

***Upright prior to impact***

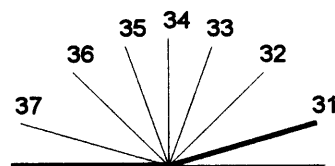
- (11) Moved to completely rearward position  
 (12) Moved to rearward midrange position  
 (13) Moved to slightly rearward position  
 (14) Retained pre-impact position  
 (15) Moved to slightly forward position  
 (16) Moved to forward midrange position  
 (17) Moved to completely forward position

***Slightly reclined prior to impact***

- (21) Moved to completely rearward position  
 (22) Moved to rearward midrange position  
 (23) Retained pre-impact position  
 (24) Moved to upright position  
 (25) Moved to slightly forward position  
 (26) Moved to forward midrange position  
 (27) Moved to completely forward position

***Completely reclined prior to impact***

- (31) Retained pre-impact position  
 (32) Moved to rearward midrange position  
 (33) Moved to slightly rearward position  
 (34) Moved to upright position  
 (35) Moved to slightly forward position  
 (36) Moved to forward midrange position  
 (37) Moved to completely forward position



(99) Unknown

54. Seat Performance (this Occupant Position) 9

- (0) Occupant not seated or no seat  
 (1) No seat performance failure(s)  
 (2) Seat adjusters failed  
 (3) Seat back folding locks or "seat back" failed  
 (specify): \_\_\_\_\_  
 (4) Seat track/anchors failed  
 (5) Deformed by impact of occupant  
 (6) Deformed by passenger compartment intrusion,  
 (specify): \_\_\_\_\_  
 (7) Combination of above (specify): \_\_\_\_\_  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

## CHILD SAFETY SEAT

55. Child Safety Seat Make/Model φ φ φ

(000) No child safety seat

Applicable codes are found in your NASS CDS  
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):  
\_\_\_\_\_

(998) Unknown make/model

(999) Unknown if child safety seat used

56. Type of Child Safety Seat φ

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat - with shield

(5) Booster seat - without shield

(7) Other type child safety seat (specify):  
\_\_\_\_\_

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

57. Child Safety Seat Orientation φ φ

(00) No child safety seat

*Designed for Rear Facing for This Age/Weight*

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):  
\_\_\_\_\_

(09) Unknown orientation

*Designed For Forward Facing for This Age/Weight*

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):  
\_\_\_\_\_

(19) Unknown orientation

*Unknown Design or Orientation For This  
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):  
\_\_\_\_\_

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage φ φ59. Child Safety Seat Shield Usage φ φ60. Child Safety Seat Tether Usage φ φNote: Options below applicable to  
Variables OA58-OA60.

(00) No child safety seat

*Not Designed With Harness/Shield/Tether*(01) After market harness/shield/tether  
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market  
harness/shield/tether added(09) Unknown if harness/shield/tether  
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

## INJURY CONSEQUENCES

61. Injury Severity (Police Rating) 3

- (0) O - No injury  
 (1) C - Possible injury  
 (2) B - Nonincapacitating injury  
 (3) A - Incapacitating injury  
 (4) K - Killed  
 (5) U - Injury, severity unknown  
 (6) Died prior to accident  
 (9) Unknown

62. Treatment - Mortality 3

- (0) No treatment  
 (1) Fatal  
 (2) Fatal - ruled disease (specify):  
 \_\_\_\_\_

*Nonfatal*

- overnight*
- (3) Hospitalization  
 (4) Transported and released  
 (5) Treatment at scene - nontransported  
 (6) Treatment later  
 (7) Treatment - other (specify):  
 \_\_\_\_\_  
 (8) Transported to a medical facility-unknown if treated  
 (9) Unknown

63. Type Of Medical Facility (for Initial Treatment) 2

- (0) Not treated at a medical facility  
 (1) Trauma center  
 (2) Hospital  
 (3) Medical clinic  
 (4) Physician's office  
 (5) Treatment later at medical facility  
 (8) Other (specify):  
 \_\_\_\_\_

## (9) Unknown

64. Hospital Stay 01

- (00) Not Hospitalized  
 \_\_\_\_\_ Code the number of days (up through 60) that the occupant stayed in hospital.  
 (61) 61 days or more  
 (99) Unknown

65. Working Days Lost 99

- \_\_\_\_\_ Code the number of days (up through 60) that the occupant lost from work due to the accident  
 (00) No working days lost  
 (61) 61 days or more  
 (62) Fatally injured  
 (97) Not working prior to accident  
 (99) Unknown

## EMERGENCY RESPONSE INFORMATION

EMS Notification 2

- (1) Not notified  
 (2) Notified  
 (9) Unknown

ROAD VEHICLE 2  
 AIR VEHICLE 2

## EMS Notification Time (9999) Unknown

1838  
 ROAD VEHICLE  
1838  
 AIR VEHICLE

## EMS Arrival Time

- (9998) EMS cancelled or did not arrive  
 (9999) Unknown

1843  
 ROAD VEHICLE  
1853  
 AIR VEHICLE

## EMS Departure Time To Treatment Facility

- (9997) EMS arrived, provided treatment, but did not transport  
 (9998) EMS arrived, but was not used  
 (9999) Unknown

9999  
 ROAD VEHICLE  
9997  
 AIR VEHICLE

## EMS Arrival Time At Treatment Facility (9999) Unknown

9999  
 ROAD VEHICLE  
9999  
 AIR VEHICLE

EMS Type 01

- (01) Fire department  
 (02) Rescue squad  
 (03) Police department  
 (04) Trauma unit  
 (05) Disaster unit  
 (06) Ambulance service unit  
 (07) Hospital  
 (08) Mortuaries/funeral homes  
 (98) Other, specify: \_\_\_\_\_  
 (99) Unknown

ROAD VEHICLE 01  
 AIR VEHICLE 01

EMS Care (on scene or during transport) 99

- (01) No care administered  
 (02) First aid  
 (03) Resuscitation  
 (04) CPR  
 (05) Emergency cardiac care  
 (06) Life support system monitoring (blood pressure, pulse rate, respiration, EKG)  
 (07) Emergency burn care  
 (08) Combination of above, specify: \_\_\_\_\_  
 (98) Other, specify: \_\_\_\_\_  
 (99) Unknown

ROAD VEHICLE 99  
 AIR VEHICLE 99

STOP WORK HERE VARIABLES 66-74 TO BE CODED BY THE ZONE CENTER

**TO BE CODED BY THE ZONE CENTER****INJURY CONSEQUENCES**

## 66. Time to Death

0 0

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal  
(96) Fatal - ruled disease  
(99) Unknown

## 67. 1st Medically Reported Cause of Death

0 0

## 68. 2nd Medically Reported Cause of Death

0 0

## 69. 3rd Medically Reported Cause of Death

0 0

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes  
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

## 70. Number of Recorded Injuries for This Occupant

0 3

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries  
(97) Injured, details unknown  
(99) Unknown if injured

**TRAUMA DATA**

## 71. Glasgow Coma Scale (GCS) Score (at Medical Facility)

0 2

- (00) Not injured  
(01) Injured - not treated at medical facility  
(02) No GCS Score at medical facility  
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.  
(97) Injured, details unknown  
(99) Unknown if injured

## 72. Was the Occupant Given Blood?

9

(1) No - blood not given

(2) Yes - blood given

(specify units):

(9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO<sub>3</sub>0 1

- (00) Not injured  
(01) Injured, ABGs not measured or reported  
(02-50) Code the actual value of the HCO<sub>3</sub>  
(96) ABGs reported, HCO<sub>3</sub> unknown  
(97) Injured, details unknown  
(99) Unknown if injured

**BELT USE DETERMINATION**

## 74. Primary Source of Belt Use Determination

B

(0) Not equipped/not available/destroyed or rendered inoperative

(1) Vehicle inspection

(2) Official injury data

(3) Driver/occupant interview

(8) Other (specify): PAL

(9) Unknown if belt used



## General Information

DSI96AB10

	<u>Vehicle 1</u>	<u>Vehicle 2</u>
Year:	1992	1993
Make:	Mercury	Pontiac
Model:	Sable	Grand Am
Body Style:	4S	4S
CDC:	11FDEW2	MISSING
Damaged Side:		Right
PDOF:	340°	40°
Heading Angle:	90°	210°

## Vehicle Information

	<u>Vehicle 1</u>	<u>Vehicle 2</u>
Wheelbase:	269.9 cm	262.6 cm
Length:	488.2 cm	474.7 cm
Width:	180.8 cm	174.2 cm
Weight:	1554.0 kg	1310.0 kg
Center of Gravity:	228.1 cm	228.1 cm
Radius of Gyration:	146.5 cm	142.4 cm
D0:	71.5 sqrt(N)	63.3 sqrt(N)
D1:	9.8 sqrt(N)/cm	7.5 sqrt(N)/cm
Size Category:	3	3
Stiffness Category:	3	3

Vehicle 1: Used d0 and d1 values estimated from the vehicle size (modified for offset impact).  
Vehicle 2: Used d0 and d1 values estimated from the vehicle size.

DSI96AB10

WinSMASH 1. 2. 1

## Damage Information

	<u>Vehicle 1</u>	<u>Vehicle 2</u>
	Offset Impact	
Damage Length:	145.0 cm	ROLDMISS
Damage Offset:	0.0 cm	
Field L - D:	-14.0 cm	0.0 cm
C1:	23.6 cm	
C2:	26.1 cm	
C3:	25.2 cm	
C4:	21.9 cm	
C5:	9.0 cm	
C6:	0.0 cm	

## Summary of Results Using Damage

### Vehicle 1

	Speed Change (Damage)
Total:	39.0 km/h
Longitudinal:	-36.6 km/h
Latitudinal:	13.3 km/h
PDOF:	340°

Energy Dissipated:	52,119 Joules
Barrier Equivalent Speed:	27.2 km/h
Moment Arm of Principle Force:	61.0 cm (CW)
Change in Angular Velocity:	1.8 deg/seconds

Used d0 and d1 values estimated from the vehicle size (modified for offset impact).

### Vehicle 2

	Speed Change (ROLDMISS)
Total:	46.2 km/h
Longitudinal:	-35.4 km/h
Latitudinal:	-29.7 km/h
PDOF:	40°

Energy Dissipated:	186,284 Joules
Barrier Equivalent Speed:	54.9 km/h
Moment Arm of Principle Force:	66.7 cm (CW)
Change in Angular Velocity:	2.4 deg/seconds

Used d0 and d1 values estimated from the vehicle size.

# TRAFFIC COLLISION REPORT

BEST AVAILABLE

PAGE 1 OF 2

SPECIAL COMPLAINT		NUMBER BLANKED <b>3</b>	MT & RUN PELONY	CITY	JUDICIAL DISTRICT	LOCAL REPORT NUMBER
NUMBER <b>8</b>		MT & RUN MIA	COUNTY	REPORTING DISTRICT	SEAT	

LOCATION	COLLISION OCCURRED ON				MO. DAY YEAR <b>1 196 10 13</b>	TIME (HRS) <b>1900</b>	OFFICER'S ID.
	SPEED INFORMATION				DAY OF WEEK <b>SMTWTFSS</b>	TOW AWAY <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	PHOTOGRAPHS BY:
	<input type="checkbox"/> AT INTERSECTION WITH				STATE HWY REL. <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> NONE		
	<input checked="" type="checkbox"/> OR: <b>LEFT/RIGHT</b> OF						

PARTY 1	DRIVER'S LICENSE NUMBER	STATE	CLASS	SAFETY SEMP.	VEH YEAR	MAKE / MODEL / COLOR	LICENSE NUMBER	STATE
DRIVER	NAME (FIRST, MIDDLE, LAST)		<b>C</b>	<b>G</b>	<b>95</b>	<b>PONTIAC GRAND AM</b>	<b>RED</b>	
PEDESTRIAN	STREET ADDRESS	OTHER'S NAME						
PARKED VEHICLE	CITY / STATE / ZIP	OTHER'S ADDRESS						
BICT. CLIFT	SEX	HAIR	EYES	HEIGHT	WEIGHT	DOB	BIRTHDATE DAY	RACE
OTHER	HOME PHONE	BUSINESS PHONE	DISPOSITION OF VEHICLE ON ORDER OF: <input checked="" type="checkbox"/> OFFICER <input type="checkbox"/> DRIVER <input type="checkbox"/> OTHER					
	INSURANCE CARRIER	POLICY NUMBER	PRIOR MECHANICAL DEFECTS: <input checked="" type="checkbox"/> NONE APPARENT <input type="checkbox"/> REFER TO NARRATIVE					
	DIR. OF TRAVEL	ON STREET OR HIGHWAY	SPEED LIMIT	PCP	ICC	PUC	CMP	DESCRIBE VEHICLE DAMAGE
			<b>55</b>					SHADE IN DAMAGED AREA

PARTY 2	DRIVER'S LICENSE NUMBER	STATE	CLASS	SAFETY SEMP.	VEH YEAR	MAKE / MODEL / COLOR	LICENSE NUMBER	STATE
DRIVER	NAME (FIRST, MIDDLE, LAST)		<b>C</b>	<b>L</b>	<b>92</b>	<b>MERCURY SABLE 4DR</b>	<b>12 BLUE</b>	
PEDESTRIAN	STREET ADDRESS	OTHER'S NAME						
PARKED VEHICLE	CITY / STATE / ZIP	OTHER'S ADDRESS						
BICT. CLIFT	SEX	HAIR	EYES	HEIGHT	WEIGHT	DOB	BIRTHDATE DAY	RACE
OTHER	HOME PHONE	BUSINESS PHONE	DISPOSITION OF VEHICLE ON ORDER OF: <input checked="" type="checkbox"/> OFFICER <input type="checkbox"/> DRIVER <input type="checkbox"/> OTHER					
	INSURANCE CARRIER	POLICY NUMBER	PRIOR MECHANICAL DEFECTS: <input checked="" type="checkbox"/> NONE APPARENT <input type="checkbox"/> REFER TO NARRATIVE					
	DIR. OF TRAVEL	ON STREET OR HIGHWAY	SPEED LIMIT	PCP	ICC	PUC	CMP	DESCRIBE VEHICLE DAMAGE
	<b>E</b>		<b>55</b>					SHADE IN DAMAGED AREA

PARTY 3	DRIVER'S LICENSE NUMBER	STATE	CLASS	SAFETY SEMP.	VEH YEAR	MAKE / MODEL / COLOR	LICENSE NUMBER	STATE
DRIVER	NAME (FIRST, MIDDLE, LAST)							
PEDESTRIAN	STREET ADDRESS	OTHER'S NAME						
PARKED VEHICLE	CITY / STATE / ZIP	OTHER'S ADDRESS						
BICT. CLIFT	SEX	HAIR	EYES	HEIGHT	WEIGHT	DOB	BIRTHDATE DAY	RACE
OTHER	HOME PHONE	BUSINESS PHONE	DISPOSITION OF VEHICLE ON ORDER OF: <input type="checkbox"/> OFFICER <input type="checkbox"/> DRIVER <input type="checkbox"/> OTHER					
	INSURANCE CARRIER	POLICY NUMBER	PRIOR MECHANICAL DEFECTS: <input type="checkbox"/> NONE APPARENT <input type="checkbox"/> REFER TO NARRATIVE					
	DIR. OF TRAVEL	ON STREET OR HIGHWAY	SPEED LIMIT	PCP	ICC	PUC	CMP	DESCRIBE VEHICLE DAMAGE
								SHADE IN DAMAGED AREA

REPAIRER'S NAME	DISPATCH NOTIFIED	REVIEWER'S NAME	DATE REVIEWED
	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A		<b>96</b>



## TRAFFIC COLLISION CODING

DATE OF COLLISION		TIME (2400)	LOC NUMBER	OFFICER I.D.	NUMBER
NO. DAY YEAR		1813			
PROPERTY DAMAGE		OWNER'S NAME / ADDRESS			
DESCRIPTION OF DAMAGE					

SEATING POSITION		OCCUPANTS		SAFETY EQUIPMENT		EJECTED FROM VEHICLE	
		A - NONE IN VEHICLE B - UNKNOWN C - LAP BELT USED D - LAP BELT NOT USED E - SHOULDER HARNESS USED F - SHOULDER HARNESS NOT USED G - LAP / SHOULDER HARNESS USED H - LAP / SHOULDER HARNESS NOT USED J - PASSIVE RESTRAINT USED K - PASSIVE RESTRAINT NOT USED		L - AIR BAG DEPLOYED M - AIR BAG NOT DEPLOYED N - OTHER P - NOT REQUIRED  CHILD RESTRAINT Q - IN VEHICLE USED R - IN VEHICLE NOT USED S - IN VEHICLE USE UNKNOWN T - IN VEHICLE IMPROPER USE U - NONE IN VEHICLE		M/C/MCYCLE - HELMET DRIVER Y - NO W - YES  PASSENGER X - NO Y - YES	
						0 - NOT EJECTED 1 - FULLY EJECTED 2 - PARTIALLY EJECTED 3 - UNKNOWN	

ITEMS MARKED BELOW FOLLOWED BY AN ASTERISK (\*) SHOULD BE EXPLAINED IN THE NARRATIVE.

PRIMARY COLLISION FACTOR LIST NUMBER (1) OF PARTY AT FAULT		TRAFFIC CONTROL DEVICES		1	2	3	TYPE OF VEHICLE		1	2	3	MOVEMENT PRECEDING COLLISION	
A VEHICLE VIOLATION:		A CONTROLS FUNCTIONING		X	X		A PASSENGER CAR / STATION WAGON					A STOPPED	
B OTHER IMPROPER DRIVING:		B CONTROLS NOT FUNCTIONING *					B PASSENGER CAR W / TRAILER			X		B PROCEEDING STRAIGHT	
C OTHER THAN DRIVER:		C CONTROLS OBSCURED					C MOTORCYCLE / SCOOTER					C RAN OFF ROAD	
D UNKNOWN:		D NO CONTROLS PRESENT / FACTOR *					D PICKUP OR PANEL TRUCK					D MAKING RIGHT TURN	
E FELL ASLEEP:		TYPE OF COLLISION					E PICKUP / PANEL TRUCK W / TRAILER					E MAKING LEFT TURN	
		X A HEAD-ON					F TRUCK OR TRUCK TRACTOR					F MAKING U TURN	
		B SIDESWPE					G TRUCK / TRUCK TRACTOR W / TRLR					G BACKING	
		C REAR END					H SCHOOL BUS					H STOPPING	
WEATHER (MARK 1 TO 3 ITEMS)		D BROADSIDE					I OTHER BUS					I PASSING OTHER VEHICLE	
A CLEAR		E HT OBJECT					J EMERGENCY VEHICLE					J CHANGING LANES	
B CLOUDY		F OVERTURNED					K HIGHWAY CONST. EQUIPMENT					K PARKING MANEUVER	
X C RAINING		G VEHICLE / PEDESTRIAN					L BICYCLE					L ENTERING TRAFFIC	
D SNOWING		H OTHER:					M OTHER VEHICLE					M OTHER UNSAFE TURNING	
E FOG / VISIBILITY		MOTOR VEHICLE INVOLVED WITH					N PEDESTRIAN			X		N RING INTO OPPOSING LANE	
F OTHER:		A NON-COLLISION					O MOPED					O PARKED	
G WIND		B PEDESTRIAN										P REVERSED	
LIGHTING		X C OTHER MOTOR VEHICLE										Q TRAVELING WRONG WAY	
X A DAYLIGHT		D MOTOR VEHICLE ON OTHER ROADWAY										R OTHER:	
B DUSK - DAWN		E PARKED MOTOR VEHICLE											
C DARK - STREET LIGHTS		F TRAIN											
D DARK - NO STREET LIGHTS		G BICYCLE											
E DARK - STREET LIGHTS NOT FUNCTIONING		H ANIMAL:											
ROADWAY SURFACE		I FIXED OBJECT:											
A DRY		J OTHER OBJECT:											
X B WET													
C SNOWY - ICY													
D SLIPPERY (MUDDY, ONLY, ETC.)													
ROADWAY CONDITIONS (MARK 1 TO 2 ITEMS)		PEDESTRIAN'S INVOLVED											
A HOLES, DEEP RUT		X A NO PEDESTRIAN INVOLVED											
B LOOSE MATERIAL ON ROADWAY		B CROSSING IN CROSSWALK AT INTERSECTION											
C OBSTRUCTION ON ROADWAY		C CROSSING IN CROSSWALK - NOT AT INTERSECTION											
D CONSTRUCTION - REPAIR ZONE		D CROSSING - NOT IN CROSSWALK											
E REDUCED ROADWAY WIDTH		E IN ROAD - INCLUDES SHOULDER											
F FLOODED		F NOT IN ROAD											
G OTHER:		G APPROACHING / LEAVING SCHOOL BUS											
X H NO UNUSUAL CONDITIONS													

OTHER ASSOCIATED FACTOR (B) (MARK 1 TO 3 ITEMS)		SOBERNESS - DRUG PHYSICAL (MARK 1 TO 3 ITEMS)	
A VEHICLE VIOLATION:		A HAD NOT BEEN DRINKING	
B VEHICLE VIOLATION:		B HBD - UNDER INFLUENCE	
C VEHICLE VIOLATION:		C HBD - NOT UNDER INFLUENCE	
D		D HBD - IMPAIRMENT UNKNOWN	
E VISION OBSCUREMENT:		E UNDER DRUG INFLUENCE	
F INATTENTION:		F IMPAIRMENT - PHYSICAL	
G STOP & GO TRAFFIC		G IMPAIRMENT NOT KNOWN	
H ENTERING / LEAVING RAMP		H NOT APPLICABLE	
I PREVIOUS COLLISION		I SLEEPY / FATIGUED	
J UNFAMILIAR WITH ROAD		SPECIAL INFORMATION	
K DEFECTIVE VEH. EQUIP.:		A HAZARDOUS MATERIAL	
L UNINVOLVED VEHICLE			
M OTHER:			
N NONE APPARENT			
O RUNAWAY VEHICLE			

SKETCH

W.

P-1

P-2

AOI

INDICATE NORTH

96

WITNESS ONLY	PASSENGER ONLY	AGE	SEX	EXTENT OF INJURY ("X" ONE)				INJURED WAS ("X" ONE)					PARTY NUMBER	SEAT POS.	SAFETY EQUIP.	EJECTED
				FATAL INJURY	SEVERE INJURY	OTHER VISIBLE INJURY	COMPLAINT OF PAIN	DRIVER	PASS.	PEO.	BIKE/CLUB	OTHER				
<input type="checkbox"/>	<input type="checkbox"/>	7	M	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	3	6A	0
NAME / D.O.B. / ADDRESS																
TELEPHONE																

(INJURED ONLY) TRANSPORTED BY:

TAKEN TO:

AIR

DESCRIBE INJURIES

CRITICAL CONDITION WITH TRAUMA TO CHEST AND NECK.

☐ VICTIM OF VIOLENT CRIME NOTIFIED

<input type="checkbox"/>	<input type="checkbox"/>	68	M	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	1	9L	0
NAME / D.O.B. / ADDRESS																
TELEPHONE																

(INJURED ONLY) TRANSPORTED BY:

TAKEN TO:

AIR

DESCRIBE INJURIES

CUTS ON BACK ON HEAD AND ARM, COMPLAINT OF PAIN IN CHEST

☐ VICTIM OF VIOLENT CRIME NOTIFIED

<input type="checkbox"/>	<input type="checkbox"/>	21	M	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	1	G	0
NAME / D.O.B. / ADDRESS																
TELEPHONE																

(INJURED ONLY) TRANSPORTED BY:

TAKEN TO:

AIR

DESCRIBE INJURIES

GASH ON BACK OF HEAD, BRUISES ON LEG AND CHEST.

☐ VICTIM OF VIOLENT CRIME NOTIFIED

<input checked="" type="checkbox"/>	<input type="checkbox"/>	44	M	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
NAME / D.O.B. / ADDRESS																
TELEPHONE																

(INJURED ONLY) TRANSPORTED BY:

TAKEN TO:

S2

DESCRIBE INJURIES

☐ VICTIM OF VIOLENT CRIME NOTIFIED

<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
NAME / D.O.B. / ADDRESS																
TELEPHONE																

(INJURED ONLY) TRANSPORTED BY:

TAKEN TO:

DESCRIBE INJURIES

☐ VICTIM OF VIOLENT CRIME NOTIFIED

<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
NAME / D.O.B. / ADDRESS																
TELEPHONE																

(INJURED ONLY) TRANSPORTED BY:

TAKEN TO:

DESCRIBE INJURIES

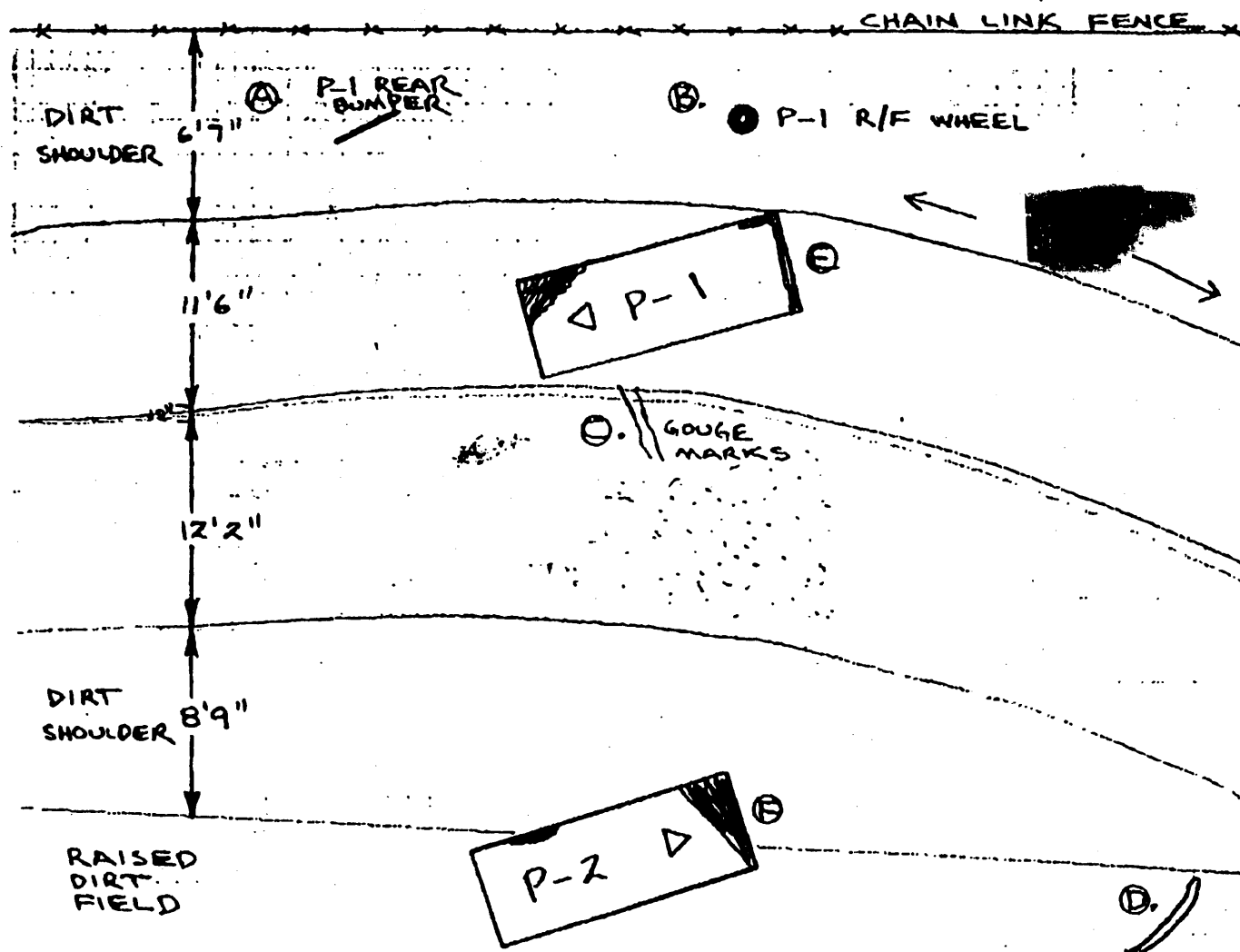
☐ VICTIM OF VIOLENT CRIME NOTIFIED

PREPARED BY NAME	ID. NUMBER	MO.	DAY	YEAR	REVIEWER'S NAME	MO.	DAY	YEAR
------------------	------------	-----	-----	------	-----------------	-----	-----	------

ALL MEASUREMENTS ARE APPROXIMATE AND NOT TO SCALE UNLESS STATED (SCALE - NOT TO SCALE)



INDICATE NORTH



**LEGEND**

- Ⓐ = P-1 REAR BUMPER
- Ⓑ = P-1 RIGHT FRONT WHEEL
- Ⓒ = GOUGE MARKS IN ASPHALT
- Ⓓ = P-1 FRONT BUMPER
- Ⓔ = POR OF P-1 VEHICLE
- Ⓕ = POR OF P-2 VEHICLE

Ⓓ = P-1 FRONT BUMPER

DATE OF INCIDENT/OCCURRENCE 96	TIME (2400) 1813	NCIC NUMBER [REDACTED]	OFFICER I.D. NUMBER [REDACTED]	NUMBER [REDACTED]
<input checked="" type="checkbox"/> Narrative <input type="checkbox"/> Supplemental		<input type="checkbox"/> Collision report <input type="checkbox"/> Other:		<input type="checkbox"/> Hit and run update <input type="checkbox"/> Other:
<input type="checkbox"/> BA update <input type="checkbox"/> Hazardous materials		<input type="checkbox"/> Fatal <input type="checkbox"/> School bus		REPORTING DISTRICT/BEAT [REDACTED]
CITY/COUNTY/JUDICIAL DISTRICT [REDACTED]		CITATION NUMBER [REDACTED]		STATE HIGHWAY RELATED <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
CATION/SUBJECT [REDACTED]				

1. I FACTS

2. A. SCENE

3. 1. ROAD DESCRIPTION

4. AT THE SCENE

5. OF THE ACCIDENT IS A TWO LANE, TWO WAY

6. ASPHALT ROADWAY, RURAL ROAD WITH A

7. SLIGHT CURVE AND GRADE, DIVIDED BY

8. DOUBLE YELLOW SOLID LINES.

9. [REDACTED] ST. WEST IS A DIRT ROAD THAT

10. RUNS NORTH FORMING A 'T' WITH [REDACTED]

11. NOT A FACTOR IN T/C USED AS

12. REFERENCE ONLY.

13. 2. TRAFFIC CONTROLS NONE

14. B MEASUREMENTS (ALL APPROXIMATE AND DONE BY ROLAMPE)

15. AOI WAS 218 FEET EAST OF ECL OF [REDACTED]

16. AND 7'7" NORTH OF SCL OF [REDACTED]

17. POR FOR P-1 WAS; R/F TIRE 222'11" EAST

18. OF ECL OF [REDACTED] AND 19'7" NORTH

19. OF SCL OF [REDACTED]

20. L/F TIRE 226' E. OF ECL OF [REDACTED] ST

21. WEST AND 13'40" N. OF SCL OF [REDACTED]

22. L/R TIRE WAS 231'8" E OF ECL OF [REDACTED] ST

23. W AND 19'9" N OF SCL OF [REDACTED]

24. R/R TIRE WAS 230' E OF ECL OF [REDACTED]

25. ST W AND AT THE NCL OF [REDACTED]

PREPARER'S NAME AND I.D. NUMBER [REDACTED]	DATE 96	REVIEWER'S NAME [REDACTED]	DATE [REDACTED]
---	------------	-------------------------------	--------------------



OF INCIDENT/OCCURRENCE 96	TIME (2400) 1813	NCIC NUMBER [REDACTED]	OFFICER I.D. NUMBER [REDACTED]	NUMBER [REDACTED]
NE Narrative Supplemental COUNTY/JUDICIAL DISTRICT	TYPE SUPPLEMENTAL ("X" APPLICABLE) <input type="checkbox"/> BA update <input type="checkbox"/> Collision report <input type="checkbox"/> Other: <input type="checkbox"/> Hazardous materials <input type="checkbox"/> Fatal <input type="checkbox"/> School bus <input type="checkbox"/> Hit and run update <input type="checkbox"/> Other:		REPORTING DISTRICT/BEAT [REDACTED]	
CITATION NUMBER [REDACTED]			STATE HIGHWAY RELATED <input type="checkbox"/> Yes <input type="checkbox"/> No	

MEASUREMENTS CONTINUED

POR FOR P-2 WAS; L/E TIRE WAS 226' 8" E. OF ECL OF [REDACTED] ST W AND 7' 2" S. OF SCL OF [REDACTED] L/R TIRE WAS 218' E OF ECL OF [REDACTED] ST W AND 11' 3" S. OF SCL OF [REDACTED] RD.  
 R/R TIRE WAS 221' E OF ECL OF [REDACTED] ST W, AND 16' S OF SCL OF [REDACTED]  
 R/F TIRE WAS 229' E OF ECL OF [REDACTED] ST W. AND 11' 2" S OF SCL OF [REDACTED] RD.

POR FOR THE P-1 R/F TIRE WAS 231' 8" E. OF ECL OF [REDACTED] ST W AND 4' 9" N. OF NCL OF [REDACTED]

POR FOR P-1 FRONT BUMPER WAS 280' 10" E. OF ECL OF [REDACTED] ST W AND 11' S OF SCL OF [REDACTED]

POR FOR P-1 REAR BUMPER WAS 200' E OF ECL OF [REDACTED] W. AND 5' 4" N. OF NCL OF [REDACTED] RD.

GOUGE MARKS IN E/B LANE WERE 227' E OF ECL OF [REDACTED] ST WEST AND 9' 9" N OF SCL OF [REDACTED] GOUGE WAS 4' 4" LONG

PREPARER'S NAME AND I.D. NUMBER [REDACTED]	DATE 96	REVIEWER'S NAME [REDACTED]	DATE [REDACTED]
---	------------	-------------------------------	--------------------

DATE OF INCIDENT/OCCURRENCE 96		TIME (2400) 1813	NCIC NUMBER [REDACTED]	OFFICER I.D. NUMBER [REDACTED]	NUMBER [REDACTED]
<input type="checkbox"/> Narrative <input type="checkbox"/> Supplemental		<input type="checkbox"/> Collision report <input type="checkbox"/> Other:		TYPE SUPPLEMENTAL (X* APPLICABLE) <input type="checkbox"/> BA update <input type="checkbox"/> Hazardous materials <input type="checkbox"/> Fatal <input type="checkbox"/> School bus <input type="checkbox"/> Hit and run update <input type="checkbox"/> Other:	
CITY/COUNTY/JUDICIAL DISTRICT				REPORTING DISTRICT/BEAT	CITATION NUMBER
LOCATION/SUBJECT				STATE HIGHWAY RELATED <input type="checkbox"/> Yes <input type="checkbox"/> No	
1. C. PHYSICAL EVIDENCE					
2. 1. SKIDMARKS: NONE					
3.					
4. 2. DEBRIS AS LISTED IN MEASUREMENTS,					
5. P-1 FRONT BUMPER WAS ON					
6. THE SOUTH ROADWAY SHOULDER AND					
7. P-1 REAR BUMPER WAS ON THE					
8. NORTH SHOULDER. P-1 R/F WHEEL					
9. WAS ON N. SHOULDER OF ROADWAY					
10.					
11. II STATEMENTS					
12. BOTH PARTIES WERE TRANSPORTED					
13. TO HOSPITAL PRIOR TO MY ARRIVAL.					
14.					
15. W-1 SAID HE WAS WORKING IN					
16. THE FIELD N/W. OF T/C. HE SAW					
17. P-1 CROSS FROM THE W/B LANE INTO					
18. THE E/B LANE AND SAW THE					
19. VEHICLES HIT. HE SAID P-1 WAS					
20. ON THE WRONG SIDE OF THE ROAD					
21. AND WAS THE CAUSE OF THE ACCIDENT.					
22.					
23.					
24. III OPINIONS AND CONCLUSIONS					
25. A. SUMMARY: P-1 WAS DRIVING W/B.					
26. ON [REDACTED] ROAD IN HEAVY RAIN,					
27. LOST TRACTION AND ENTERED THE E/B					
28. LANE. THE VEHICLES THEN HIT HEAD					
29. ON, WHICH CAUSED P-1 TO SPIN AND					
30. P-2 TO GO SOUTH OFF ROADWAY.					
31.					
PREPARER'S NAME AND I.D. NUMBER		DATE	REVIEWER'S NAME		DATE
[REDACTED]		-96	[REDACTED]		[REDACTED]

TYPE OF INCIDENT/OCCURRENCE <b>96</b>		TIME (MM/SS) <b>1013</b>	NCIC NUMBER	OFFICER I.D. NUMBER	NUMBER
ONE	*X ONE		TYPE SUPPLEMENTAL (X APPLICABLE)		
<input type="checkbox"/> Narrative	<input type="checkbox"/> Collision report		<input type="checkbox"/> BA update	<input type="checkbox"/> Fatal	<input type="checkbox"/> Hit and run update
<input type="checkbox"/> Supplemental	<input type="checkbox"/> Other:		<input type="checkbox"/> Hazardous materials	<input type="checkbox"/> School bus	<input type="checkbox"/> Other:
V/COUNTY/JUDICIAL DISTRICT				REPORTING DISTRICT/BEAT	CITATION NUMBER
CATION/SUBJECT				STATE HIGHWAY RELATED	
				<input type="checkbox"/> Yes <input type="checkbox"/> No	

**B CAUSE**  
 THE CAUSE OF THE ACCIDENT WAS  
 P-1 VIOLATION OF ASSOCIATED  
 FACTOR WAS P-1 UNSAFE SPEED FOR CONDITIONS

**IV RECOMMENDATIONS - NONE**

31. PREPARED'S NAME AND I.D. NUMBER	DATE	REVIEWER'S NAME	DATE
	<b>96</b>		

# NARRATIVE/SUPPLEMENTAL

PAGE 1 OF 1

BEST AVAILABLE

DATE OF ORIGINAL INCIDENT

96

TIME (2400)

1813

NCIC NUMBER

OFFICER I.D.

NUMBER

1  
2  
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35

96

The purpose of this supplemental report is to advise that injured passenger, M/W 89, died as a result of injuries sustained in this collision.

Passenger            had been transferred to            where he was pronounced dead at 1000 hours today by           . According to            sustained massive whiplash type injuries to his head and neck which caused cerebral edema which resulted in his death. The doctor also said that there was bruising from the seatbelt. The boy's parents,            were at the hospital at the time of death and were notified by            called            and notified the traffic office of the death at 1320 hours.

I notified Homicide Bureau at 1400 hours and spoke to Deputy           . He notified the Coroner's office and case number            was assigned. The Coroner's office will contact            and speak to            to make arrangements for organ donation in keeping with the wishes of the parents.

I notified            of the City of            at 1415 hours.

I notified            of the            Traffic Office at 1427 hours.

I notified Deputy            at            Station who will prepare and send out an updated press release regarding the death of the boy.

Because of the fatality, the retention on this report is now "0" and the stat code is changed to "470".

Due to the death of P-2 Passenger            the facts of the case will be presented to the            County District Attorney for consideration of a charge of Vehicular Manslaughter against P-1

PREPARED BY NAME

I.D. NUMBER

DATE

96

REVIEWER'S NAME

DATE



UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES
PATIENT INFORMATION: NAME, ADDRESS, AGE, D.O.B., SEX, RACE, ETHNICITY, RELIGION, OCCUPATION, MARITAL STATUS, SOCIAL HISTORY, ALLERGIES, MEDICAL HISTORY, CURRENT MEDICATIONS, VITALS, PHYSICAL EXAM, LABORATORY TESTS, TREATMENT, DISPOSITION, SIGNATURE, DATE, TIME.
PATIENT INFORMATION: NAME, ADDRESS, AGE, D.O.B., SEX, RACE, ETHNICITY, RELIGION, OCCUPATION, MARITAL STATUS, SOCIAL HISTORY, ALLERGIES, MEDICAL HISTORY, CURRENT MEDICATIONS, VITALS, PHYSICAL EXAM, LABORATORY TESTS, TREATMENT, DISPOSITION, SIGNATURE, DATE, TIME.
PATIENT INFORMATION: NAME, ADDRESS, AGE, D.O.B., SEX, RACE, ETHNICITY, RELIGION, OCCUPATION, MARITAL STATUS, SOCIAL HISTORY, ALLERGIES, MEDICAL HISTORY, CURRENT MEDICATIONS, VITALS, PHYSICAL EXAM, LABORATORY TESTS, TREATMENT, DISPOSITION, SIGNATURE, DATE, TIME.

PROVIDER

BEST AVAILABLE

15

AUTOPSY CLASS: ☐ A ☐ B ☐ C  
☒ EXAMINATION ONLY (D)

Date 1/6/93 Time 10:30 Dr. [Redacted]  
PRINT NAME 196

☐ PENDING ☒ FINAL ON.  
☐ TOX ☐ NEURO ☒ LAW ENF. REPORT  
☐ HISTO ☐ MED HIST. ☐ OTHER \_\_\_\_\_

APPROXIMATE  
INTERVAL  
BETWEEN  
ONSET  
AND  
DEATH

22. DEATH WAS CAUSED BY: (ENTER ONLY ONE CAUSE PER LINE FOR A, B, C AND D)  
IMMEDIATE CAUSE

(A) Multiple Injuries  
DUE TO, OR AS A CONSEQUENCE OF

(B) Blunt Force Trauma  
DUE TO, OR AS A CONSEQUENCE OF

(C) \_\_\_\_\_  
DUE TO, OR AS A CONSEQUENCE OF

(D) \_\_\_\_\_  
DUE TO, OR AS A CONSEQUENCE OF

Days

REQUEST

☐ Police Report \_\_\_\_\_  
☐ Med. History \_\_\_\_\_  
  
☐ Consultation \_\_\_\_\_  
☐ Investigations \_\_\_\_\_  
  
☐ Criminalistics \_\_\_\_\_  
☐ GSR ☐ Other \_\_\_\_\_

Other conditions contributing but not related to the immediate cause of death:

☐ NATURAL ☒ ACCIDENT ☐ SUICIDE ☐ HOMICIDE ☐ UNDETERMINED

If other than natural causes  
HOW DID INJURY OCCUR? vehicle (passenger) vehicle

WAS OPERATION PERFORMED FOR ANY CONDITION STATED ABOVE? ☒ Yes ☐ No

TYPE SURGERY ventriculostomy DATE 9/6

☒ ORGAN PROCUREMENT  
in situ  
  
☐ PERTINENT COMMENTS:  
Kidney /  
pancreas

☐ WITNESSES TO AUTOPSY:  
  
☐ EVIDENCE RECOVERED AT AUTOPSY  
Item Description:

☐ HISTOPATH CUT: ☐ AUTOPSY ☐ LAB  
☐ MICROBIOLOGY:  
☐ NEUROPATHOLOGY

TOXICOLOGICAL SPECIMENS COLLECTED

☐ YES, by \_\_\_\_\_  
☐ BLOOD: ☐ HEART ☐ \_\_\_\_\_ OTHER  
☐ BILE ☐ BRAIN  
☐ LIVER ☐ SPLEEN  
☐ URINE ☐ KIDNEY  
☐ STOMACH ☐ VITREOUS  
CONTENTS ☐ \_\_\_\_\_  
  
☒ NO BLOOD  
☐ EMBALMED  
☒ > 24 HR. IN HOSPITAL  
☒ NOT INDICATED  
☐ OTHER \_\_\_\_\_ REASON

TOXICOLOGICAL ANALYSES ORDERED

SCREEN: ☐ C ☐ H ☐ T ☐ S  
☐ ALCOHOL ONLY  
☐ CARBON MONOXIDE  
☐ NO TOXICOLOGY REQUESTED  
☐ OTHER (SPECIFY DRUG AND TISSUE) \_\_\_\_\_

☐ STORAGE JARS (No. \_\_\_\_\_)

Typing Blood Taken by \_\_\_\_\_  
☐ HEART ☐ OTHER \_\_\_\_\_

PRIOR EXAMINATION REVIEW BY DME

☐ BODY TAG ☐ MED. RECORD  
☐ CLOTHING ☐ AT SCENE PHOTO (NO. \_\_\_\_)  
☐ SPECIAL ☐ X-RAY (NO. \_\_\_\_)  
PROCESSING TAG ☐ FLUORO

WHITE - FILE COPY  
CANARY - FORENSIC LAB COPY  
PINK - INVESTIGATION COPY  
GOLDENROD - MEDICAL EXAMINER COPY

\_\_\_\_\_, M.G. \_\_\_\_\_, M.D.  
RESIDENT MEDICAL EXAMINER

DEATH CERTIFICATE ISSUED

DATE ISSUED \_\_\_\_\_ ISSUED BY \_\_\_\_\_

☐ PENDING DATE ISSUED \_\_\_\_\_ ISSUED BY \_\_\_\_\_

18

TO REPORT A DEATH — PHONE ( )  
 COMPLETE ALL LINES. USE INK. IF UNKNOWN OR NOT  
 SO STATE

NAME OF PATIENT

RESS PHONE

E OF DECEDENT

IDENTIFIED

OF DEATH

NOUNCED BY

MEDICAL RECORD OR PATIENT FILE

EMERGENCY ROOM PATIENT

HOSPITAL IN PATIENT

## ORGAN/TISSUE DONATION INFORMATION

WAS THE NEXT OF KIN APPROACHED REGARDING ORGAN/TISSUE DONATION?

NO ☐YES ☒

IF YES WHAT WAS THEIR RESPONSE?

Agree to donation

of all vital organs.

E ADMITTED

SL

TIME

03:30

HOSPITAL BY:

☐

POLICE

☐

RELATIVES

☐

FRIENDS

☐

SELF

☒ AMBULANCE (Name of R.A. #)

(STATE WHETHER HOME, HOSPITAL OR OTHER)

GIVE ADDRESS

(IF HOSPITAL ATTACH THEIR HISTORY)

ATTENDED BY M.D. PRIMARY ATTENDING PHYSICIAN M.D.

PHONE #

DIES

DATE

SL 18:30

PLACE

CAUSE

Motor Vehicle Accident  
(TRAFFIC, FALL, ETC.)

DESCRIBE INJURIES:

Anoxic encephalopathy and Brain death.

Pulmonary contusions.

MEDICAL HISTORY:

7 y 10 m in passenger seat of automobile in Grand Junction. High speed head-on collision. Pt. was restrained. EMS responded &amp; found Pt. Unconscious &amp; in cardiac arrest.

SURGICAL PROCEDURES STATE TYPE, DATE, TIME

RESULTS OF ANY OPERATION OR AMPUTATION PERFORMED

Ventriculostomy placed &amp; subsequently removed.

196

WAS A BULLET OR OTHER FOREIGN OBJECT RECOVERED? SPECIFY

NO

LABORATORY: SPECIFY SPECIMENS TAKEN

None

DATE &amp; TIME

LABORATORY RESULTS:

Routine blood tests.

MAIN LABORATORY SPECIMENS

RAY REPORT:

Cerebral good flow seen: no flow to the brain.

EEG: definitive flat line.

MARKS: ESPECIALLY SYMPTOMS PRECEDING AND DURING TERMINAL EPISODE

MY OPINION, THE IMMEDIATE CAUSE OF DEATH IS:

Anoxic encephalopathy &amp; global/massive cerebral edema.

ONE #

M.D.

OR

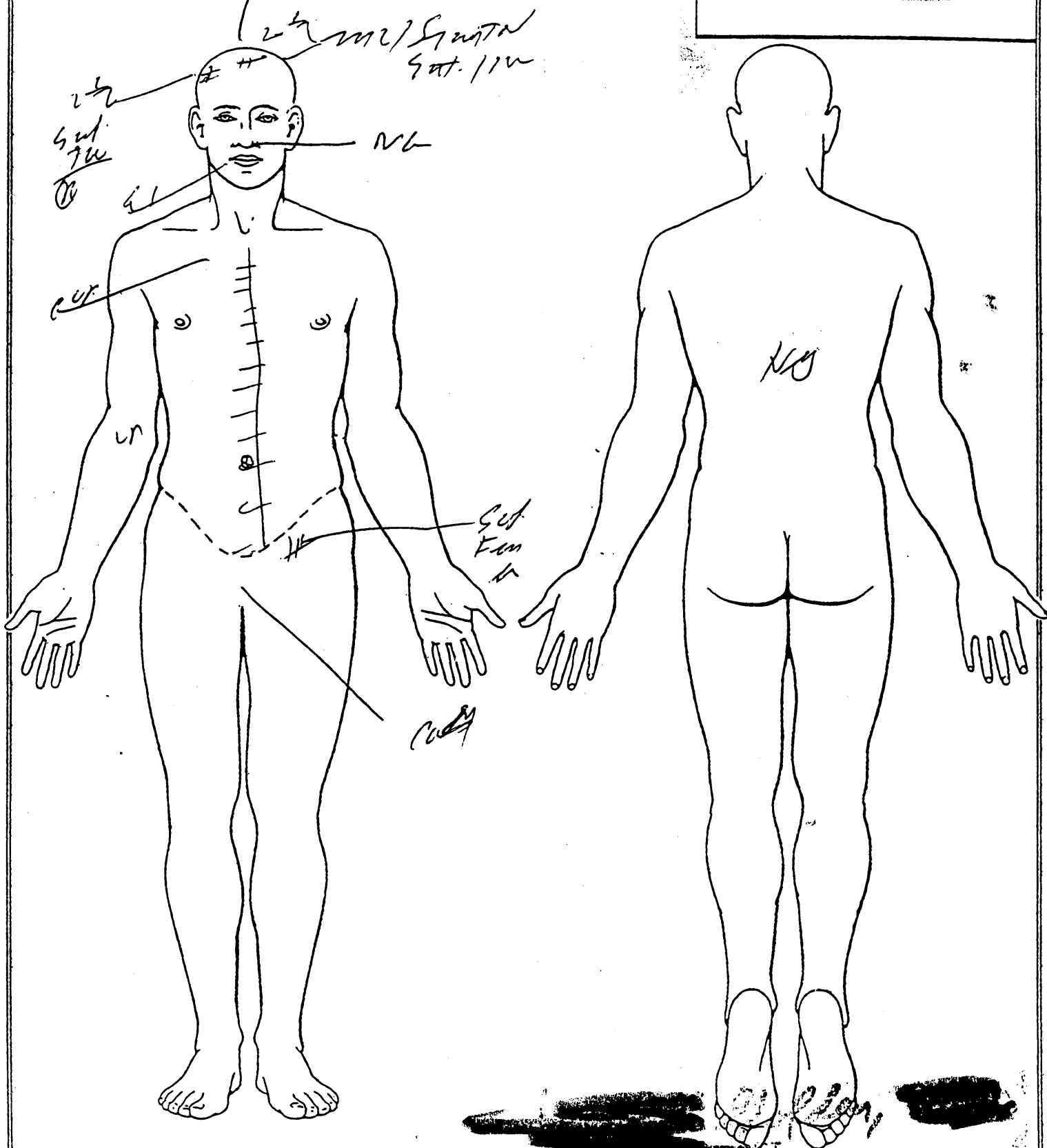
NURSE/HOSPITAL ADMINISTRATOR

THE BODY WILL NOT BE REMOVED BY THE CORONER WITHOUT THIS COMPLETED REPORT AND COPIES OF ALL CHARTS.

20

Verification  
(placement)

BEST AVAILABLE



Deputy Medical Examiner

M.D.



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## EXAMINATION PROTOCOL

FOLLOW FORM EXACTLY AS PRINTED  
CIRCLE OR CHECK ONE OR THOSE THAT APPLY  
REMEMBER THE FORM IS PRINTED ON BOTH SIDES

page 1 of 2

The body is identified by toe tags. Diagram(s) & form(s) used 20/15

The body

☒ is clothed  
☐ was not clothed

and I

☐ inspected the clothing.  
☒ did not see the clothing.

The clothing can be described as \_\_\_\_\_

☒ Rigor has presumably been altered/abolished as has livor.  
☐ Rigor mortis is present. Livor mortis is \_\_\_\_\_

Appears: ☒ Asian ☐ Black ☒ Caucasian ☐ Hispanic ☐ Indian

Sex: ☒ Male ☐ Female.

Appears the stated age of: 7 years

The body weighs approximately

57 pounds, measures  
approx 54 inches and is

☐ cachectic.  
☐ mildly/moderately/extremely obese.  
☐ poorly nourished.  
☒ thin.  
☒ well-built, muscular and fairly well-nourished.  
☐ status post hospitalization, (see diagram)

Embalmed: ☐ No ☐ Yes ☐ Decomposed ☐ Mutilated

Irides: ☒ Blue ☐ Brown ☐ Grey ☐ Hazel

Sclera: ☒ Normal ☐ Icteric ☐ Congested with/without Petechial Hemorrhage

Conjunctival Petechial Hemorrhage: ☒ No ☐ Yes

Head Hair: ☐ Black ☒ Blond ☐ Brown ☐ Gray ☐ Red ☐ White

☐ Long ☒ Short ☐ Curly ☐ Straight ☐ Tightly Curled ☐ Wavy

Balding is: ☒ Absent ☐ Present Located: temple/frontal/occipital

Mustache: ☒ Absent ☐ Present Beard: ☒ Absent ☐ Present

Teeth: ☐ Absent ☒ Present Comment: \_\_\_\_\_

Dentures: ☒ Absent ☐ Present Comment: \_\_\_\_\_

Scars: ☒ None ☐ Present Comment: Incision -  
organ donor / Handed

(includes needle track scars)

# EXAMINATION PROTOCOL

BEST AVAILABLE page 2 of 2

Tattoos: ☐ Absent ☐ Present Comment: \_\_\_\_\_

Deformities: ☒ Absent ☐ Present Comment: \_\_\_\_\_

There is no deformity or abnormal mobility of the extremities except for \_\_\_\_\_

The oral and nasal passages are unobstructed/~~obstructed by~~ \_\_\_\_\_

Resuscitative marks are ~~are not~~ present over the precordium. The chest has no ~~an~~ mildly increased anterior-posterior diameter.

The abdomen is

- ☒ distended.
- ☒ flat.
- ☐ not unusual.
- ☐ obese.
- ☐ scaphoid.

The genitalia are those of an adult

*normal*

- ☐ female.
- ☒ male.

Examination of the back & buttocks reveals WNL

Examination of the skin reveals D

IF A TRAUMA CASE STATE: Injury date: 96 Hospital Date(s): 96

TRAUMA COMMENTS:

*Ref - Fam 18-  
Anoxic Encephalopathy - due to  
Craniocerebral Trauma - (Mamm Death)*

Photographs ☐ Yes ☒ No  
X-Rays ☐ Yes ☒ No  
Toxicology ☐ Yes ☒ No  
GSR ☐ Yes ☒ No

Fluoroscopy ☐ Yes ☒ No  
Cultures ☐ Yes ☒ No  
Cassettes ☐ Yes ☒ No  
Evidence ☐ Yes ☒ No

Indicate other form number(s) attached 2018

OPINION (please print)

*Death is attributed to  
Mamm Head Injury and  
Chest Trauma (Mamm  
Panturion)*

DEPUTY MEDICAL EXAMINER

Date

196

## CASE REPORT

1996

BEST AVAILABLE

DEPARTMENT OF CORONER

1	APPARENT MODE										CASE NO.		
	<input type="checkbox"/> STATE HOSP <input type="checkbox"/> O.I.S. <input type="checkbox"/> AUTOPSY WAIVER <input type="checkbox"/> CLOSELY WATCHED <input type="checkbox"/> DOMESTIC VIOLENCE												
	<input type="checkbox"/> IN CUSTODY <input type="checkbox"/> AT WORK <input type="checkbox"/> LAW ENFORCEMENT RELATED <input type="checkbox"/> VICTIMS OF CRIME <input type="checkbox"/> GANG RELATED												
SPECIAL CIRCUMSTANCES * TA Vehicle/Vehicle(Passenger)												CRYPT	
* No Charges													
LAST, FIRST MIDDLE AKA:												<input type="checkbox"/> JOHN	
												<input type="checkbox"/> JANE	
												<input type="checkbox"/> UND #	
ADDRESS CITY STATE ZIP													
SEX	RACE	DOB	AGE	HGT	WGT	EYES	HAIR	TEETH	VIEW	CONDITION	<input type="checkbox"/> EMBALMED		
M	C	89	7	54	57	Blue	Blond	Own	YES NO	Fair			
BEARD	SCARS (DESCRIBE) MARKS TATTOOS (DESCRIBE) AMPUTATIONS PIERCINGS DEFORMITIES												
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	None noted												
MUSTACHE													
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N													
UNSHAVEN													
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N													
ID BY: <input type="checkbox"/> VISUAL (SEE BELOW) <input type="checkbox"/> LAPD PRINTS <input type="checkbox"/> DOJ PRINTS													
<input checked="" type="checkbox"/> FAMILY @ HOSPITAL <input type="checkbox"/> LASD PRINTS <input type="checkbox"/> CAL ID PRINTS													
<input type="checkbox"/> DL/ID <input type="checkbox"/> FBI PRINTS													
LA #	MAIN #	CII #	FBI #	MILITARY #	POB								
NAME (PRINT)		SIGNATURE		RELATIONSHIP		PHONE		DATE		TIME			
I HAVE PERSONALLY SEEN THE DECEASED OR A PHOTOGRAPH AND CONFIRM THE IDENTIFICATION													
PLACE OF DEATH/PLACE FOUND		ADDRESS OR LOCATION		CITY		ZIP							
PLACE OF INJURY		AT WORK	DATE	LOCATION OR ADDRESS									
Vehicle/RF passenger		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	96 1830 ±										
DOD	FND	TIME	FOUND BY										
96	1000		PRON BY										
OTHER AGENCY & INV. OFFICER		PHONE		REPORT NO.		NOTIFIED BY							
		PH											
TRANSPORTED BY:		TO: FSC		DATE		TIME							
		AVRO											
		SCVRO											
								96 @ 1210					
PRINTS	YES NO	CLOTHING	YES NO	PA RPT	YES NO	MEC SEAL	PA SEAL	NOT SEALED	MORTUARY				
	<input type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/> <input checked="" type="checkbox"/>						
MED. EV.	<input type="checkbox"/> <input checked="" type="checkbox"/>	INVEST. PHOTO #	<input type="checkbox"/> <input checked="" type="checkbox"/>	PROP.	YES NO	HOSP. RPT.	YES NO	HOSP. CHART	YES NO				
	<input type="checkbox"/> <input checked="" type="checkbox"/>	EVIDENCE LOG	<input type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/> <input checked="" type="checkbox"/>				
PHYS. EV.	<input type="checkbox"/> <input checked="" type="checkbox"/>	GSR NO	N/A	RCPT. NO.		PF NO.							
	<input type="checkbox"/> <input checked="" type="checkbox"/>												
SUICIDE	<input type="checkbox"/> <input checked="" type="checkbox"/>												
NOTE													
Riding as the right front passenger in a car driven by his grandfather when they collided head on with another vehicle at an estimated 60+ mph. Decedents seatbelt/shoulder harness in place, airbag deployed. Recovered from the back seat. Bystander CPR for 15 minutes before paramedics at scene. No vitals for rescue. Taken to transferred to day later. Injuries described as pulmonary contusions, anoxic encephalopath, brain death. Decedent eventually succumbed. Seen at the without trauma showing multiple donations													
INFORMATION SOURCES: 1) H 2) Hospital PF 3) 2 4) FSC investigation													
INVESTIGATOR		DATE		96		TIME		1941					

FORM #3 NARRATIVE TO FOLLOW? ☐ YES ☒ NO

## EMERGENCY ROOM SUPPLEMENT

BEST AVAILABLE

DATE: 96

### CARDIOPULMONARY RESUSCITATION, TRAUMATIC AND FULL ARREST NOTE

HISTORY OF PRESENT ILLNESS: [REDACTED] is a 7-year-old patient who comes to the Emergency Room via paramedics and air squad in traumatic full arrest. He was involved in a motor vehicle accident at approximately 1830 hours. Apparently, a high speed, head on collision. Both cars were in the 50 to 60 miles per hour range. Paramedics arrived with no blood pressure or pulse with air bag and seat belt injuries to the chest and abdomen. They started mask suit airway control with an oral airway and hyperventilated and also started IV full fluids. He was given epinephrine 1 mg times two. The patient converted to a sinus tachycardia with a palpable blood pressure. But this only lasted for approximately 15 minutes and then on arrival to the Emergency Department, he was in full cardiac arrest.

There is no other past medical history available at this time, but later the father gave no history that there is underlying medical problems.

PHYSICAL EXAMINATION: GENERAL APPEARANCE: On arrival in the Emergency Room the patient has basically trauma to the upper chest and right clavicle as well as a slightly distended abdomen. LUNGS: Lung sounds though with the ambu bag are clear bilaterally. HEART: Heart sounds are not present due to the patient's flat line on cardiac monitor. EXTREMITIES: The patient's extremities were in the ambu bag initially and were not examined. The patient was in the mask suit initially. The paramedics though described that they had no obvious trauma to these extremities prior to the mass suit.

COURSE IN THE EMERGENCY ROOM: The patient was attached to the cardiac monitor and was in flat line. He was immediately continued on external cardiopulmonary resuscitation which was in progress on arrival and was immediately intubated with a #6 tube without complications. There was a lot of vomitus in the airway and there was a potential aspiration.



## EMERGENCY ROOM SUPPLEMENT

BEST AVAILABLE

The patient had bilateral IV's already established and was given additional epinephrine, Atropine and Bicarbonate. He slowly returned with a sinus rhythm which showed quite a bit of ectopy and nasogastric tube also was put down almost simultaneously.

The ectopy immediately stopped and remained in sinus tachycardia and his blood pressure initially was momentarily up to the 160 range but then quickly dropped back down to 90 and that is where it seemed to stabilize after approximately a liter and a half of fluid.

Initially, we called the Trauma Team. call and pediatrics. But by the time that these people called back and actually was in the Emergency Department, the patient's father came and told us he was a patient. At that time, recommended calling a doctor. and were called. They immediately returned the call and they would be available to follow up.

The CBC came back with a hemoglobin of 13, hematocrit of 40, and white blood cell count of 10,000. Initial blood gases after intubation showed the pH of 7.04, PCO2 48, PO2 22, indicating marked lactic acidosis with adequate oxygenation. The electrolytes showed a slightly low bicarbonate at 17, glucose was 308, BUN 13, creatinine 0.6.

The patient continued on fluids and was able to be stable enough to go for a CT scan of the chest and abdomen. The CT scan was only up for a short time because of the electrical storm that was available and we had very limited time for the CT scan. The patient's CT scan of the great vessels and cardiac silhouette all appeared good. There was no evidence of cardiac tamponade. The patient had some excess fluid in the abdomen but the spleen and liver, pancreas and kidneys all appeared to be intact.

at the time of dictation, was here evaluating the patient as well as The patient remained and started to drop his blood pressure at this time and as soon as the father's CT scan of the abdomen and chest was done, a CT scan of the child's head will be done.

## EMERGENCY ROOM SUPPLEMENT

BEST AVAILABLE

### ELECTROCARDIOGRAM INTERPRETATION:

FINDINGS: Electrocardiogram was done and this showed premature ventricular contractions with sinus tachycardia but no ischemic changes.

PLAN: The patient will be admitted to Intensive Care Unit under the care of \_\_\_\_\_ with \_\_\_\_\_ as pediatric consultation.

### ADMISSION DIAGNOSIS:

1. Status post traumatic full arrest.
2. Cardiac contusion.
3. Cardiac arrhythmias with ventricular fibrillation in the field.
4. Fixed and dilated pupils more than likely related to cardiac arrest.

M:

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JOB #: \_\_\_\_\_

# TRANSFER SUMMARY

BEST AVAILABLE

DATE OF ADMISSION:

96

DATE OF TRANSFER:

96

FINAL DIAGNOSIS:

CHIEF COMPLAINT:

Cardiopulmonary full arrest, auto-

versus-auto.

HISTORY OF

PRESENT ILLNESS:

was a previously healthy 7-1/2-year-old white male who was a passenger in his grandfather's automobile while they were traveling on the highway, traveling approximately 55-65 mph. They were involved in a head-on collision. was wearing a seat belt and the air bag deployed his chest.

The child was found in full arrest and was given cardiopulmonary resuscitation for approximately 15 minutes out in the field by an off-duty paramedic. The paramedic continued CPR until the paramedics arrived and then continued CPR en route to

Hospital. The child arrived at the emergency room nonresponsive, pupils fixed and dilated. The child was immediately intubated with a 6.0 endotracheal tube and given epinephrine times one and bicarbonate was given. The child was also to be given atropine and did convert into a sinus rhythm.

LABORATORY DATA:

Hemoglobin 13, hematocrit 40, white count 10 with normal platelets. The electrolytes were normal with an elevated glucose of 300. Urinalysis was positive for 3+ blood.

Neurologic:

The patient has been unresponsive, pupils fixed and dilated. The head CT scan with leftover contrast from the abdominal CT revealed no midline shift, no evidence of dilated ventricles, cerebral edema or evidence of mid brain herniation.

The patient was given Mannitol 0.25 gm/kg times one, Decadron 1 mg/kg/dose and from neurology was consulted. No seizure activity or posturing was noted.

*2 per telephone  
1 agreed & overall  
plan.*

Respiratory:

Page 1 of 3

TRANSFERRED

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## TRANSFER SUMMARY

BEST AVAILABLE

The patient was intubated with an endotracheal tube of 6.0, cuffed with a 50 cc air lead. Tidal volume 250 cc. The I-time 1.3, respiratory rate 60, PEEP 3. The oxygen saturation is in the mid 70's to low 80's on 100% oxygen.

The last gas was pH 7.27, pCO<sub>2</sub> 30, pO<sub>2</sub> must have been a mixed venous because the pO<sub>2</sub> was 48. The oxygen saturation was 78%. Will continue to monitor respiratory status.

### Cardiovascular:

No heart rate on admission. The pulse has been 100-160. Blood pressure initially 80-90/50, dipping down to 40/30. Dopamine drip started. It has been hovering at 80-85/50. Also received normal saline bolus of 100 cc times two. A dopamine drip was started at 5 mcg/kg/min which has been bumped up to 15 mcg/kg/min. Dobutamine started @ 5 mcg/kg/min as well as 1 ↑ to 7.5 mcg/kg/min *infer transfer*

The cardiovascular condition is continually being monitored. Will add dobutamine if necessary.

### Gastrointestinal:

Abdominal CT was negative. There was no evidence of liver, spleen or gross kidney trauma. There is blood in the urine. The patient has an nitroglycerin to intermittent suction with small amounts of coffee ground emesis. The patient is NPO. *[redacted]* from surgery evaluated the patient and there was no evidence of a surgical abdomen. There is an ileus secondary to the trauma. Continue the management as directed. Would consider putting the patient on Zantac or Cimetidine and (H<sub>2</sub> blockers)

### Renal:

The patient had a Foley catheter with good urinary output which responded to about an 80-100 cc urine output after the Mannitol.

### Hematologic:

The patient appears to be stable. Hemoglobin of 13% on admission is now 11%. No evidence of active bleeding. Will repeat another hematocrit and arterial blood gases. Consider PT, PTT.

TRANSFERRED



## TRANSFER SUMMARY

BEST AVAILABLE

### Infectious Disease:

The patient is hypothermic at 91-92°F. Has been placed on blankets and some external thermal measures. Also was given Rocephin 1 gm intravenously.

### IMPRESSION

#### AND PLAN:

This is a previously healthy 7-1/2-year-old male who suffered most likely severe brain anoxia who is now unresponsive. The pupils are fixed and dilated. Head CT scan is negative as noted.

The family is aware of his grave condition and have agreed to transport the patient to the pediatric intensive care unit at the \_\_\_\_\_ so that he can undergo further studies to document whether there is brain activity on the electroencephalogram and have pediatric neurology evaluation.

PD:

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JOB #: \_\_\_\_\_

CC:

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# CONSULTATION

BEST AVAILABLE

Date of Consultation: 96

CONSULTANT:

REQUESTED BY:

REASON FOR

CONSULTATION: I was asked to see this patient in consultation by the emergency room doctor and also by the , and I responded as soon as I could. I finished my surgery upstairs and then came down and evaluated the patient in the emergency room. There is only minimal history available, but I understand that the patient was involved as a passenger in a car involved in a head on collision with each car going approximately 55-60 miles an hour. The patient was apparently wearing a seat belt and the air bag did inflate.

There was someone near the scene of the accident. I have been told that this was an off duty paramedic or fireman who gave the patient approximately eight minutes of mouth-to-mouth resuscitation and then the paramedics arrived and the patient apparently had suffered a full arrest in the field. The patient had fixed and dilated pupils and had repeated ventricular fibrillation. The patient, eventually was brought to the emergency room where he was evaluated by . The patient was noted to be fixed and dilated on physical examination and he was immediately intubated because he was quite hypoxic and also had evidence of a low pH of 7.0.

The patient was also noted to have been vomiting just prior to coming in and there was vomit and emesis present in the mouth and this was cleared. The patient never had good vital signs. Initially his blood pressure was approximately 50 and when I saw the patient the blood pressure was 64/30. The patient has never responded to any stimuli and the pupils have been fixed and dilated ever since his admission here. I understand that the patient immediately went to CAT scan department after he was felt to be as stable as he could be. CAT scan of the chest showed no contusions, but no evidence of any hemopneumothorax. The heart was not showing any evidence of any contusion or any pericardial tamponade. There were infiltrates in both lung fields. The CAT scan of the abdomen showed some fluid and dilated loops of small

Page 1 of 3

## CONSULTATION

BEST AVAILABLE

intestine, but there was no evidence of gross free air and there was no evidence of any rupture of his spleen or liver. We understand that his grandfather was also involved in the accident and he is a patient here in the hospital as well. The child was examined.

### PHYSICAL

EXAMINATION: The child was lying in a flat position or supine position. He is intubated. Head: There is no evidence of head trauma. There is a large amount of vomitus around the mouth still. Pupils are completely fixed and dilated and I myself do not see any gross of papilledema. Nose: Septum is in the midline. The ears are clear. Neck: Supported by means of a collar. C-spine precautions were taken, but I understand that there was no evidence of fractures. Chest is symmetrical. He has decreased air entry and he has some crackles in both lung field. There is no evidence of any subcutaneous air. Heart rate is actually fairly slow at the present time being in the 60s to 64. Abdomen: Shows no evidence of trauma with multiple abrasions or contusions primarily over the right lower quadrant. His abdomen is distended of course. The child was unable to respond. There is no guarding, no rebound or rigidity. Bowel sounds are absent. Genitalia: Normal male. The testicles are in the scrotum. A Foley catheter is draining urine which is grossly clear. Rectal: Examination is non-localizing. Extremities: The lower extremities are in a MAST suit, but he does have some perfusion. Neurologic: The patient is totally comatose. There is no response to pain or painful stimuli whatsoever. He does not move any extremities.

IMPRESSION:

1. Multiple trauma.
2. Severe anoxic event to the brain.
3. Possible herniation of brain stem.
4. Bilateral pulmonary contusions and probable bilateral aspiration pneumonia.
5. Possible intra-abdominal injury, but no evidence of any fracture of spleen or liver.

DISCUSSION: I would recommend an immediate neurosurgical or neurological consult on this patient to evaluate the brain status. The patient, in fact, may have evidence of brain death. In my opinion there is no need for an emergency abdominal exploration because there is no evidence of any serious bleeding

## CONSULTATION

BEST AVAILABLE

and no evidence of any free air or any grossly traumatized intestine. Also the patient does not need any chest tubes, that part needs to be treated medically. I will stay around and will follow the patient with you and I will certainly make recommendations after evaluation and discussion with neurologist.

Thank you for asking me to see this patient in consultation.

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GB:  
D: 96  
T: 96  
JOB #:  
cc:



1996

DATE OF ADMISSION: 96

DATE OF DISCHARGE/DEATH: 96

PRINCIPAL DIAGNOSIS: Status post motor vehicle accident.

SECONDARY DIAGNOSIS: Brain death.

COMPLICATIONS: Expiration.

PRINCIPAL PROCEDURE: Ventilatory support.

SECONDARY PROCEDURES:

1. Femoral arterial cannulation.
2. Femoral venous cannulation.
3. Internal jugular cannulation.
4. EEG.
5. Intravenous fluids.
6. Cardiorespiratory support.

CONDITION ON DISCHARGE: Expiration.

The patient was a 7-year-old male who was status post motor vehicle accident and was transferred to from

The patient was traveling in an automobile with his grandfather in the passenger seat and restrained when he was struck by a head-on collision at approximately 6:30 p.m. on 96. On arrival, EMS noted the patient was in the back seat and in full arrest. CPR was performed for 15 minutes. The patient was transferred to

In the ER, the patient was intubated, CPR was initiated. The patient received epinephrine, bicarbonate, atropine. Initial pH was 7.01, initial hemoglobin and hematocrit were 13 and 44. A head CT, C-spine and abdominal CT scans were all negative. Chest x-ray did note a right pulmonary contusion in the upper lobe that progressed to diffuse infiltrates throughout on follow-up films. Urinalysis showed 3+ blood. The patient was noted to have good urine output. The patient had a Glasgow Coma Scale of 3. His pupils were fixed and dilated. He was started on mannitol, Decadron, Rocephin x 1, dopamine at 10 mcg/kg/min was initiated. During transport, the dopamine was increased to 20 mcg/kg/min to maintain blood pressure. The patient was also started on dobutamine during transport.

1996

His current medications on arrival were Rocephin, Decadron, mannitol, dopamine and dobutamine. He was noted to have no known drug allergies. He had no complications during pregnancy or delivery. Normal birth weight and normal development. His immunizations were noted to be up to date. His past history was significant for a history of wheezing episodes x 3. He also was noted to have a head injury at 5 years of age. No other significant past medical history was noted.

On arrival, patient's vital signs were a blood pressure 101/35, pulse 170, temperature 34, respiratory rate of 30, and a weight of 25 kg. The patient was intubated and unconscious. His pupils were fixed and dilated at 6 mm bilaterally. His breath sounds were equal bilaterally. There were rales over bilateral fields. There was noted to be contusions in the seat belt position over his chest. His abdomen was soft, nondistended. There were no bowel sounds noted and no hepatosplenomegaly. Neuromuscular exam was difficult to examine due to paralysis. His extremities were noted to be cold. There were decreased peripheral pulses bilaterally. There was no movement to pain stimulation and no spontaneous movements.

Upon arrival, femoral arterial and femoral venous lines were started as well as an internal jugular line. The patient was maintained on dopamine and dobutamine, and an epinephrine drip was initiated. The patient was adjusted for adequate ventilatory support, and cardiac support. A repeat head CT was performed which showed blood in bilateral lateral ventricles, in the subarachnoid space and in the subdural space. There was also marked cerebral edema with effacement of the suprasellar cistern and fourth ventricles. There was also multiple small cerebral parenchymal hemorrhages.

On 96, a ventriculostomy drain was placed by Neurosurgery. The patient's hospital course by systems was as follows:

**PROBLEM #1: SUPPORT:** Upon admission, the patient received several IV boluses due to decreased peripheral pulses and decreased blood pressure which subsequently stabilized his blood pressure. Throughout his hospital course, he was noted to have increasing urine output which was actually inappropriate and was thought for a period of time to have diabetes insipidus. He was started on DDAVP. His urine output normalized, and the DDAVP was discontinued. His electrolytes were maintained with the appropriate boluses.

1996

**PROBLEM #2: CARDIOVASCULAR:** The patient was initially started on dopamine, dobutamine, and epinephrine drips. All three drips were slowly weaned until patient maintained blood pressure on his own.

**PROBLEM #3: RESPIRATORY:** The patient was transferred to intubated and required minimum ventilatory support to maintain oxygen saturations, was stable on minimal ventilatory setting throughout his hospital course.

**PROBLEM #4: NEUROLOGY:** Due to initial cerebral edema and ventricular hemorrhage as well as hydrocephalus, a ventriculostomy drain was placed on 96. On 96, also, the ventriculostomy drain was noted to fail secondary to blood clots. A revision was attempted but was unsuccessful. In addition, the patient's neurological exam remained to show very minimal neurological activity from the beginning. The pupils were fixed and dilated. The patient never had any withdrawal to pain, never showed any spontaneous movements. On 96, an EEG was performed which showed no brain activity. In addition, a nuclear medicine cerebral scan showed no blood flow which was consistent with brain death. At this time, parents requested second opinion from prior to discontinuing life support. The parents and Social Work were consulted at this time, and after further consultation with several neurologists, the parents agreed to discontinue life support due to brain death. On 96, the parents did agree to organ donation, and was contacted.

On 96, care was taken by and patient was declared dead on 96.

D: 96  
T: 96



1996

CC:

DATE OF CONSULTATION:

TYPE OF CONSULTATION: Inpatient Neurology Consultation

REASON FOR CONSULTATION: The patient is status post MVA and nonresponsive, to evaluate for brain death.

The patient is a seven-year-old white male with no significant past medical history, was with his grandfather yesterday and had a head-on collision MVA at about 60 mile per hour in single-lane highway. The patient was in the front passenger seat with his seatbelt on and airbags opened up. According to the parents, the car was totally destroyed. Grandfather suffered several fractures but did not lose his consciousness.

In the field, the patient was found pulseless, and bystander initiated CPR. At the patient was still pulseless, and CPR was continued, and the patient was intubated. His pH at that time was 7.01. CT of the head, spine and abdomen were all negative. Chest x-rays showed bilateral pulmonary contusion in the upper lobe, which later progressed to diffuse infiltrate. Pupils were fixed and dilated, nonresponsive. Glasgow score of 3 was given to the patient because of +3 blood in his urine. The patient was treated with Miochol, Decadron, Rocephin, dopamine and dobutamine.

FAMILY HISTORY: Diabetes and asthma.

SOCIAL HISTORY: The patient's development for his age was normal.

No known allergies.

Currently, he is on epinephrine IV, dopamine IV, and Decadron has been discontinued.

VITAL SIGNS: Weight 25 kg, temperature 35.6, pulse 164, blood pressure 76/33. GENERAL: The patient has no spontaneous movements and is intubated. Mental examination shows no response to pain or verbal stimuli, no spontaneous movement. EYES: Pupils are dilated between 6 and 7 mm bilaterally and nonreactive. FUNDUS: Within normal. Disks are sharp. Doll's eye was negative. Corneal reflex was negative. Cold



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caloric test with 60 cc of cold water at 30 degrees head-up was done on both sides of the ears without any nystagmus. EXTREMITIES: No spontaneous movement. Flaccid extremities. No response to pain. No reflex. BABINSKI'S: No response. HEENT: HEAD: Nontraumatic. NECK: soft and supple. Tympanic membranes bilaterally were red; unlikely to be blood. CARDIOVASCULAR: Tachycardia without any murmur. LUNGS: Clear to auscultation bilaterally without any wheezing. ABDOMEN: Bowel sounds present. Soft, no distention. There is a presence of belt contusion.

LABS: ABG: 7.24, pCO2 32, pO2 107. Saturation at 97%.

ASSESSMENT AND PLAN: The patient is a seven-year-old white male status post MVA, pulseless and in respiratory arrest at the field. Physical examination shows no response. Pupils are fixed and dilated at 6-7 mm and nonreactive. Cold caloric test shows no response. Doll's eye was negative. Corneal reflex was negative. CT scan of the head and abdomen were negative. Chest x-ray shows bilateral contusion.

On clinical examination, the patient no brain stem activity. We recommend an EEG to be done on this patient to evaluate for cerebral silence

This case was discussed with

D: 96 (3:13p)  
T: 96

1996

DATE OF OPERATION: 96

SURGEON(S):

PREOPERATIVE DIAGNOSIS: Rule out increased intracranial pressure secondary to obstructive hydrocephalus, secondary to massive brain edema.

POSTOPERATIVE DIAGNOSIS: Obstructive hydrocephalus.

OPERATION PERFORMED: Ventriculostomy.

ANESTHESIA: Local anesthesia with standby.

DETAILS OF OPERATION: The patient was brought to the operating room and placed on the operating table in the supine position. The patient's neurologic examination had previously been determined to be consistent with cerebral death. He had made some minimal spontaneous nonpurposeful movements which prompted consideration for intracranial pressure monitoring.

The patient was given a complete haircut. The head was then positioned on a jelly doughnut. The cranium was shaved, prepped with a povidone-iodine solution and draped in the usual fashion. A line of intended incision was outlined, which was just anterior to the coronal suture, approximately 2.5 to 3 cm right of the midline. Approximately 1.5 cc of 0.5% Xylocaine plus epinephrine was infiltrated in the scalp, after which a small incision was made. A twist drill hole was made and a Becker-type ventricular catheter was introduced into the right frontal horn on the first pass. The blood returned slightly blood tinged under a significant amount of pressure. The pressure was then measured with the manometer and was found to be greater than 350 mm of water pressure.

At this point, the ventricular catheter was tunneled beneath the scalp and the subgaleal space and brought out through a separate stab wound. The catheter was secured to the scalp, after which a dry sterile dressing was applied and secured with tape. A full head dressing was then applied to the wound. The patient was then transferred to the Pediatric Intensive Care Unit where he was to be connected to the cerebrospinal fluid collection system. The patient's condition remained unchanged throughout the procedure. The estimated blood loss was less

1996

than 5 cc. The sponge and needle counts were reported correct at the end of the procedure.

D: 96 (6:33P)  
T: 96

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